Lectures
ON
ORTHOPÆDIC SURGERY.

Delivered at St. George's Hospital, 1868.

By BERNARD E. BRODHURST, F.R.C.S.,
LECTURER ON ORTHOPÆDIC SURGERY AT THE HOSPITAL.

LECTURE III.
ON CONTRACTIONS OF THE LIMBS.

(*Concluded from page* 690.)

Talipes varus.—It has already been stated that varus, as every other form of talipes, occurs both as a congenital and a non-congenital affection; but as it was shown that equinus is essentially a non-congenital distortion, so it must be now said that varus is especially that form of talipes which is most commonly met with at birth. In congenital varus one foot or both may be distorted; it is, however, somewhat more usual to find both feet affected rather than one only. Where only one foot is distorted, the right appears to suffer twice as often as the left, and the male child is affected with congenital talipes three times more frequently than the female. In a report which was lately made to the French Government it was stated that nearly 13,000 cases of talipes existed in France. It is probable that in this country the number of cases from every cause is relatively larger even than in France.

In talipes varus the foot undergoes a threefold alteration in its position in relation to the leg, as was first clearly pointed out by Dr. Little—namely, extension, rotation, and adduction. The essential external character of varus, however, is, as its name implies, inversion of the foot; and this may exist, though it is rare, without extension or rotation. In congenital varus, as it is ordinarily seen (Fig. 6), the heel is raised (extension), the toes are directed inwards (inversion), and the inner margin of the foot is raised (rotation).

FIG. 6.

But although this, as it is now described, may be looked upon as the type of talipes varus, several degrees of distortion occur, which are described in treatises on the subject as grades. Thus, there may be retraction of the tibialis anticus muscle alone, producing slight inversion of the anterior portion of the foot; and to this may be added contraction of the plantar fascia, through which the length of the foot is diminished. Or again, the inner edge of the foot is raised, the toes are inverted, and the heel is elevated. This grade of distortion depends on retraction of the gastrocnemius and the tibialis anticus and posticus muscles. The third grade is that which has been already described as the ordinary form of congenital varus; and the fourth grade is the most exaggerated distortion, where, perhaps, the inner margin of the foot lies in contact with the inner side of the leg, and the toes present directly upwards, or are bent backwards; the heel is drawn up, and the dorsum of the foot is directed downwards and forwards. The tendo-Achillis appears to be deflected from its ordinary position, and lies, in some of these instances of severe distortion, immediately over the posterior tibial vessels; the plantar fascia is shortened, and the muscles in the sole of the foot, as well as the extensors and adductors of the foot and the flexors of the toes, are rigidly contracted. The muscles, then, which are principally concerned in producing this affection are those of the calf of the leg and the tibial muscles; while, on the other hand, the extensor longus digitorum and the peronei become weak and attenuated.

In a severe case of talipes varus some rotation of the tarsal bones is found to exist at birth; this is easily overcome, however, and the foot is restored to its normal shape by careful and gentle treatment. Together with excessive distortion some malformation of the tarsal bones may be found, which may offer serious and even insuperable impediments to the complete removal of distortion. These, however, are rare and exceptional cases, and I only allude to them since you ought to know that they exist.

When the foot begins to bear the weight of the body important changes take place, which should be thoroughly understood. The superincumbent weight is transmitted, not through the arch of the foot, as in the normal position of the limb, but it is received on the outer margin of the foot. The metatarsal bones, from want of adequate support, become folded or doubled into the sole of the foot, and thus a broader surface is gained for support; and a soft cushion, composed of fat and cellular tissue, is developed, which enables the weight to be more readily borne, and, indeed, it is often so large and perfect that it forms an excellent rest, and enables the body to be borne almost as easily as in the normal position of the foot. This cushion is therefore of great importance to anyone afflicted with varus. In non-congenital varus this cushion, or pad, is never well developed, and, in consequence, walking is always more or less painful. Both in congenital and non-congenital varus this cushion inflames readily through over-walking or through exposure to cold, and it will then probably slough. It disappears entirely after the inversion of the foot has been removed, when the sole, instead of the outer margin of the foot, is placed in contact with the ground; its function has then ceased, and it, in consequence, ceases to exist. Not only may the fifth metatarsal bone be doubled into the sole, but the fourth also becomes folded in with it, so that at length the weight is no longer transmitted to the outer margin, but to the dorsum of the foot. (These changes are shown in Fig. 7.) And,

FIG. 7.

indeed, rotation of the foot may be so complete that the astragalus has mainly to bear the weight of the body in walking, as is shown in Fig. 8.

In the adult, every structure entering into the formation of the limb may undergo degeneration. The bones of the leg and foot become light and their walls become thin, and the tarsal bones are somewhat altered in form, especially the astragalus and the cuboid bone; the muscles also become atrophied through inaction, and after the restoration of the limb to its normal form they remain small, but their functions are restored. If, however, motion be not restored as well as the normal position of the limb, fatty degeneration of the muscles ensues. For further particulars on this part of the subject, however, I must refer you to the "Transactions of the Pathological Society," vol. x., p. 279, where you will find a minute description of an old-standing case (fifty years) of equino-varus, which was sent

up to me by Mr. Hester, of Oxford, and which dissection is now in the museum of the College of Surgeons (No. 9, B). These changes in the structures occur more readily and earlier in non-congenital than in congenital varus. Indeed, in non-congenital varus or equino-varus of forty years' standing, muscular degeneration will probably be found already far advanced, and at fifty, as in the case to which I have just referred, there may remain scarcely a trace of muscular fibre.

FIG. 8.

Non-congenital talipes varus may readily be distinguished from congenital varus; for there is present either a condition of spasm or, on the other hand, paralysis; or, again, the distortion may have been induced by loss of substance, such as is occasioned by a burn, or, as in the case which I now show you, by a lacerated wound. There may therefore be either more or less rigidity than is found in congenital varus, or there may be cicatrices. The general outline is less regular, the temperature is ill-maintained, and the limb is in consequence liable to inflame and ulcerate; yet, as would be supposed, the outward appearance of the distortion is not dissimilar to the congenital form. It is always a painful distortion, for the callosity on which the superincumbent weight is borne is ill-developed, and, through pressure or cold, this pad is liable to slough. Such limbs are occasionally amputated, in consequence of the troublesome sores which are not unfrequently produced.

The *treatment of varus* should commence within some few weeks of birth. Nothing is gained by delaying the operation; but, on the contrary, through delay more time is required to produce an equally successful result. From one to two months after birth is the time which should be selected for the operation.

In very slight cases the distortion may be removed by bandaging and movements of the limb; such treatment is long, however, and often it is unsatisfactory. In an ordinary case of varus the distortion cannot be removed by such means. With regard to mechanical treatment, Phillips says: "In the first degree of varus in infants, the foot may be restored without the division of tendons, and through the use of an instrument for extension only; but such treatment is both difficult of execution and occupies much time, it is often painful, and it is rarely efficacious. In every case, even the most simple, it is better to divide the tendons."

The tendons which require to be divided in talipes varus are those of the tibialis posticus and the tibialis anticus muscles, and the tendo Achillis. And in dividing these tendons it is right to remember that, varus being a compound distortion, its removal must be effected by various stages. Thus, inversion of the foot should first be overcome, after the tendons of the tibial muscles have been divided: the distortion is thus reduced to the condition of equinus. In infantile varus the plantar fascia is seldom contracted, or so much contracted as to require division; but when it has to be divided, it should be done before the section of the tendo Achillis is effected.

In dividing the tendon to be operated on, the knife should first be passed well beneath it; and the cutting edge being then turned towards the tendon, this will be divided transversely on extending the limb. Some operators cut down upon the tendon instead of cutting upwards or towards the surface, believing this to be the simpler method. It is a mistaken notion, however, for not only is the mode which I have indicated easier to perform, but effusion of blood is spared by adopting this mode of division of tendons. If not always entirely bloodless, this operation is for the most part so; but it is difficult to avoid wounding vessels when the knife is used to cut down upon a tendon, and frequently under these circumstances the effusion of blood is not inconsiderable.

To divide the tendon of the tibialis posticus muscle, the tenotome should be passed down to the edge of the tibia, at from three-quarters of an inch to one inch above the malleolus, and the sheath of the tendon be opened freely, without enlarging the external puncture. The rounded knife may then be passed into the wound, and, guided by the edge of the bone, it may be directed beneath the tendon. In the adult, the tendon being prominent and easily felt, the sharp-pointed knife may be slipped beneath the tendon immediately that the sheath has been opened; but in infants it is safer not to use a pointed knife for the division of the tendon.

The anterior tibial tendon should be divided immediately after the posterior tibial has been divided. The knife should be passed beneath the tendon from without inwards as it passes over the ankle-joint, and the puncture should be made close to the tendon, that the artery may not be divided. Occasionally, the anterior tibial is more tensely contracted than the posterior; in which case it should be divided first.

It is of real importance that the tendons now mentioned—namely, the tibial tendons and the tendo Achillis—should be completely divided, so that the restoration of the shape of the foot should proceed without hindrance. Should the tendon be transfixed, and consequently only in part divided, the treatment would be rendered, at least in a large number of cases, nugatory.

The division of the tendo Achillis has already been spoken of; and it is, therefore, unnecessary again to allude to it. Before, however, this tendon is divided, the mechanical treatment of varus must be undertaken.

After a tendon has been divided subcutaneously, the puncture is immediately to be closed with a morsel of lint, and the limb, having been bandaged, is to be bound to a well-padded, flexible metallic splint. It is a rule which should always be observed to place the limb, after division of the tendons, in the same position as before the operation; consequently, the splint is to be bent to the angle which the distortion represented, and bound on the inner side of the foot. When the punctures have healed—on the third or fourth day—the splint is to be removed, and one similar in kind, but longer, is to be applied on the outer side of the leg and foot. Even though a slight degree of traction alone be employed, it will be found that in the course of three days the foot will have yielded more, perhaps, than could have been expected from the amount of tension which may have been exerted. On replacing the splint the same effect will be produced, until at length the foot is fully everted.

If, in the infant, it is important, as has been already stated, to deal with talipes varus as a compound distortion, and divide the treatment into stages, it is of much greater moment to attend to this injunction when the patient is older; for, should the Achilles tendon be divided before inversion of the foot is removed, it may be impossible to bring the tarsal bones into their normal positions, and to unfold the longitudinal and transverse arches. It is therefore the rule not to divide the tendo Achillis, whether in infantile or in adult varus, until the foot has been fully everted. Although rotation of the anterior portion of the foot may only be slight, yet the difficulty of removing it, and replacing the bones in their normal positions, would be greatly increased by dividing the tendo Achillis, and thus destroying the fixed position of the os calcis.

There have been numerous cases of talipes varus lately under treatment in the hospital, varying in age from one month to twenty and more years; and you will have observed that in all the treatment has been essentially the same—differing, however, in this, that the difficulty of removing distortion, increasing for the most part as age increases, requires different appliances for its removal. Many of you also have seen a case of congenital adult varus of forty-eight years, and in which the operation was brought to a successful issue. A straight, well-padded splint, carried to the knee on the outer side of the leg, and extending beyond the foot, is sufficient to remove inversion in a large number of instances of varus; but it is obvious that such an instrument is but ill-adapted to its purpose, and in severe deformity it is entirely inefficient. The instrument to be employed in this as in every case of distortion should be constructed in accordance with the mechanical relations of the parts to which it is to be applied, and the centres of motion should correspond as nearly as possible with the centre of motion of the articulation to be acted on. Scarpa's shoe clearly does not fulfil this desideratum. We have, however, in use in the wards of the hospital instruments for the treatment of varus which have lately been brought to a degree of perfection which was formerly unknown. Their action will be much more easily understood by observation in the wards

than by description, and therefore I abstain from any description, but invite you to see them as they are applied in the wards.

The plantar fascia, when contracted, should be divided before the support of the Achilles tendon is removed from the os calcis, whether in infantile or in adult varus; otherwise the longitudinal arch of the foot can scarcely be fully expanded. It is rare, however, that the plantar fascia requires to be divided in the infant; yet occasionally the central portion of the fascia may require division, or the inner band of fascia may alone be contracted. In either case the contracted portion should be fully divided. In the adult the plantar fascia offers a serious impediment to the restoration of the shape of the foot, and always requires to be freely divided.

After the deformity has been removed, active and passive exercises of the limb, together with friction, galvanism, bathing, and other like means, must be employed, until easy if not complete power of motion is gained; for if the shape of the foot alone is restored, and the power to move it is overlooked, the patient will walk, but without elasticity and without motion at the ankle-joint. Then, distortion, to a slight extent at least, will recur, and the tendons will again require to be divided. Thus it is that the treatment of talipes varus consists of, in the first place, the removal of the distortion; and secondly, the restoration of the functions of the limb.

[*Erratum.*—In Lecture II., p. 629, col. 1, line 46, for "or" read "a."]

CONCERNING APHASIA.

BY HENRY MAUDSLEY, M.D. LOND.,
PHYSICIAN TO THE WEST LONDON HOSPITAL; LECTURER ON INSANITY AT ST. MARY'S HOSPITAL MEDICAL SCHOOL.

(*Concluded from p. 682.*)

THE question of the relation between speech and thought is really only a part of a much larger subject—I mean the intimate and essential intervention of all movements, but especially the movements acquired by education, in our mental life. We do not learn to speak only, but learn to make other designed movements; and as the movements of speech in which we learn to express ourselves afterwards play an important part in the mental processes, so do all other co-ordinate movements which we have been taught to execute. Once acquired, they are thenceforth constituents of the mind. The education of our movements is as necessary a condition of mental development as is the acquirement of ideas. Consider now what this fact physiologically means. It means that the motor centres of the body are educated by practice, until the powers or faculties of definite movements are in some mysterious way organised in them, so that the movements may easily be excited by the will, or may be automatically accomplished, sometimes without will and without consciousness; these exist, as it were, potential or abstract in their appropriate motor centres, not otherwise than as ideas do in their centres. Hence it is that when the hemispheres of the brain are removed in animals, co-ordinate movements may still be executed; and in man, when the functions of the hemispheres are in abeyance, as in the attacks of epilepsy known as the *petit mal*, similar movements go on. Nay, even movements of speech occur in certain cases of apoplexy, where there is reason to believe the functions of the hemispheres to be suspended. We must bear in mind that a connexion is organised between sensation and movement, as well as between idea and movement; so that the latter may be what is called sensori-motor. Hence it is that, on seeing or hearing a word, we may utter it without a thought of its meaning, and we may even read aloud without thought of what we are reading about, the attention being otherwise engaged. Herein we may perhaps perceive the explanation of the fact that certain aphasic patients, though unable to construct a sentence to express their own ideas, are capable of uttering the word when it is suggested to them, or even of reading a sentence with distinctness of articulation. What we have clearly to realise now, however, is, that the faculty or power of co-ordinate movement exists in the proper motor centre, and may be excited by the idea descending from the cerebral hemispheres above, or by the impulse from a sensory ganglion. The stimulus strikes, as it were, upon the motor centre, and releases the movement which is latent in it, which has been organised there by education; that movement, in the case of speech, being what the word denotes.

But there is another most important consideration, which has been almost entirely neglected, but which is of the greatest moment—namely, the influence which the motor centres, when functionally excited, have, not only on the nerves which go from them to the muscles, but on the higher cerebral centres with which they are connected by intercommunicating fibres. The faculties which have been organised in them by education may act, and probably always do act, upwards as well as downwards, and indeed may act upwards without acting downwards. So acting on the supreme cerebral centres, and thus declaring themselves in consciousness, they become what have been called *motor intuitions* — recollections of movement-associations,—furnishing us with the conception of the design of a movement before it is made; that is, in the case of speech, with the word before it is uttered. Without such motor intuition the movement could not be consciously made, or the word consciously uttered; we must have in the mind a conception of the design of the act before we can act voluntarily—in the case of speech, must remember the word before we can speak it. I am anxious to lay the greatest stress on this essential action of the motor centres upon the higher centres of thought, and to enforce the strict analogy in this regard between speech and other movements. As I have already said, it is possible to think without names, but it does not thence follow that it is possible to think without any means of physical expression. On the contrary, the evidence is all the other way; for Laura Bridgman's fingers worked, making the initial movements for letters of the finger alphabet, not only during her waking thoughts, but in her dreams. These movements were her speech, and the motor intuitions of the centres presiding over them were the names in which she thought. It is therefore misleading to say we think by names. We think by the ideas which names call up in the mind, and by the motor intuitions through which the ideas get definite expression in appropriate movement. And these motor intuitions may be either intuitions of speech or of some kind of gesture-language.

But it will be said, we are capable of thinking, and we do think, of a word before, or without, uttering it in speech. Certainly; only we ought to be careful not to mistake the conventional sign for the thing signified. What we really have, as the essential factor, in the mind is, not the word, but the motor intuition denoted by the word; just as we have in the mind the conception of any other voluntary movement before making it. There is, in fact, a modified activity of the motor centre in relation to the thought, sufficient to suggest the word, but not sufficient to issue in outward expression. It is well known that some persons of a dull and feeble understanding are obliged sometimes to call the actual movements of speech to their aid, in order to get a distinct conception; it does not suffice them to rehearse mentally the words, but they must repeat them aloud; that subdued activity of the motor centres, that internal representation of the words, which is sufficient for persons of ordinary understanding, not being sufficient for their sluggish minds. In persons again who have the habit of talking to themselves, the excitation of the motor centres during thinking passes similarly into actual movements, the internal repetition of the word becoming external utterance; and if anyone will carefully observe himself when engaged earnestly in some train of thought which he is labouring to work out methodically, he will perceive that there is a mental rehearsal of the words which may reach to an actual whispering of them—a perceptible internal twittering of the movement, which may become outward articulation. It is plain, then, that the motor intuitions, not of speech only but of other movements, constantly and essentially intervene, more or less consciously, in our mental processes—that there is a constant interaction between the motor and the ideational centres in cerebration.* In the case of speech we mark each movement by a conventional sign or word, so that the sign comes to stand in our minds for the thing denoted by it.

But it is time to bring to an end this exposition of the relations of language to other movements and to thought. What I have said furnishes merely a general sketch of a subject, the investigation of which, hitherto most grievously neglected,

* The flow of thoughts in a practised writer is as much aided by the words which he writes as is the flow of thought in a practised orator by the words which he utters. Herein we perceive a reason why skill in writing is rather unfavourable than otherwise to skill in speaking; a habit of association of ideas with different movements having been formed. Obviously there would not be any such difficulty, if the essential factor in thought were the word, and not that which it is a mark to signify.

promises fruitful results. From the standpoint at which we have arrived it would evidently be vain and futile to discuss Broca's theory, for it would be impossible to admit the existence of a speech-faculty in the convolutions without supposing that they were the seat of motor centres, and thus abandoning all that we know definitely concerning the functions of different parts of the brain. I need not here venture on any hypothesis as to what are the motor centres of speech—whether they are in the corpora striata, or corpora olivaria, or somewhere else. I assert only a conviction that they, like all other motor centres, are subordinate to the supreme hemispherical ganglia. Broca's theory is inadmissible *a priori*, as well as inconclusive *a posteriori*; it is entirely at variance with the knowledge which we have of the physiology of language, and it is really not supported by the pathological evidence on which it has been based.

The pathology of aphasia.—If what has been said be in the main true, the physiological order of events in the expression of thought is something of this kind:—The ideation which takes place in the cells of the cerebral convolutions passes thence downwards along the radiating fibres to the motor centres of speech, and excites in them the associated motor intuition which has been organised there by education. This done, we have in the mind the word appropriate to the thought, the name with which the idea has been associated. Next, by the action of the requisite volitional impulse, the particular excitation of the motor centre passes along the motor nerves, and puts in action the requisite muscles for the articulation of the word. Thus the thought is uttered or expressed in its appropriate language. In order, however, that the muscles which subserve articulation may act as required, the integrity of another factor is essential—namely, the muscular sense, whereby we are made sensible of the condition of the acting muscle. We may have in our minds the conception of a particular movement, and the will to exert it, but we cannot do so without a guiding muscular sense to enable us to know the condition of the instruments which we are using, and the force which we are applying. When, as sometimes happens, the muscular sense in one arm is paralysed, the patient cannot tell whether he is using the limb or not, unless he look at it; if he is holding something in his hand, and looks away, he drops it. The sense of sight in this case takes the place of the lost muscular sense, and, therefore, when he turns his eye away from the limb he loses all sense of its condition. So with regard to the articulation of words: if the requisite muscular sense fails, the person will not be able to utter the word, though he has it clearly in his mind, and though muscular power remains, unless some other sense supply the place of the lost muscular sense. Now, is it not probable that this is the condition of some aphasic patients who cannot for the life of them spontaneously articulate a word which they have in their minds, but who can do so when any one else suggests it—that is, when the sense of hearing takes the place of the lost muscular sense?

There are other ways in which the phenomena of aphasia may be conceived to be produced. It is conceivable that there might be lesion of the ideational centres of the convolutions, so that the person cannot rightly co-ordinate his ideas, or cannot call up the idea which he wants, and therefore not the name, all the while, perhaps, fancying erroneously that he has got the idea, and that it is only the name which he wants. I doubt not that some cases of so-called aphasia are examples of this sort—really cases of mental defect. Or there may be some damage to the intercommunicating fibres between the ideational and its associated motor centre, so that the proper name of the idea cannot be recalled, and the patient is obliged to go a roundabout way to express his idea, or cannot express it at all, or expresses it wrongly. Perhaps he may still understand the word, and even be able to utter it as a sensori-motor act, when he hears it spoken or sees it written. Or, lastly, the injury may be supposed to affect, in greater or less degree, the motor centres of speech themselves, so that the motor intuitions are destroyed, and the individual loses all memory of words, and how to say them.

It is easy, then, to conceive different pathological conditions to account for the phenomena of aphasia more probable physiologically than Broca's hypothesis, and more in conformity with the morbid lesions actually found in aphasia. For the facts really point, not to lesion of the third left frontal convolution as the essential element, but to lesion of some part of the corpus striatum, or of some motor nuclei or intercommunicating fibres in its neighbourhood—to lesion anyhow of some part of the motor centres, or of their communications with the supreme centres. We should bear in mind that if the actual motor centres of speech be not implicated in the destruction of tissue, they may still be paralysed by the inhibitory influence of a severe damage in their near neighbourhood.

A question of much interest in relation to aphasia, and which I shall notice briefly, is as to the cause of its frequent association with right, and its rare association with left, hemiplegia. An ingenious explanation has been offered by Dr. Moxon, which is that the left brain is educated for speech as it is for writing. As a person writes only with his right hand, it is evident that the motor centres in the left brain have been educated for the purpose, and that the corresponding motor centres in the right brain have not been similarly educated. Dr. Moxon's theory is that the education of speech is likewise limited to the left brain, whence it happens that disease or injury in it produces aphasia. An obvious objection to this supposition is, that while there are two hands which act quite independently of each other, there are not two tongues, but one tongue, the symmetrical halves of which constantly act together in all save one or two of its simplest movements—certainly in all the important movements of articulation. Now there is good reason to believe, as Dr. Broadbent has pointed out, that when the corresponding muscles on opposite sides of the body constantly act in concert, the nerve-nuclei of those muscles have such a close commissural connexion as to act like a single nucleus. What justification, then, have we for refusing the same power to one nucleus which we assign to the other over the bilaterally symmetrical action of the instruments of speech? Dr. Moxon seems to forgets that the education of the motor nuclei of one side must be the education of those of the other side, if they always acted simultaneously. There is, moreover, no warrant for the assumption, postulated by the theory of a one-sided speech faculty, that a motor nucleus on one side can, independently of its fellow, govern movements on both sides of the body.

Again, if the argument from the supposed analogy of writing—which, however, fails in the essentials of a true analogy—be pressed, we may rightly claim to push it further, and to ask how it is that an aphasic person, whose intelligence is preserved, does not learn to speak with the right brain, as a person suffering from right hemiplegia may learn to write with his left hand. How is it that he does not succeed in educating the right side of the brain to the instigation of simple articulation, more especially when he is able, as he sometimes is, to express his thoughts in writing? There is not any inaptitude of the muscles to prevent him; on the contrary, these may be supposed ready, by virtue of previous habit, to fall at once into the requisite movements on receiving the slightest intelligent impulse.

To me it appears that the action of the two halves of the brain in relation to speech should be compared to the action of the two eyes in vision. A person may see clearly with one eye, or with the other, or as he usually does, the sensations being simultaneous, with both eyes; and so in like manner he may think and translate his thoughts into speech with one half of the brain, or with the other, or as he usually does, their action being simultaneous, with both halves. If now it be asked how it happens that a particular lesion on one side of the brain destroys the power of speech, the reply is, that the motor nuclei of the two sides are so closely connected commissurally and functionally that damage to one implicates the other, either directly or by inhibitory action. If a person loses one eye he can certainly see with the other, though the latter is very liable to suffer sympathetically after a time; but if the optic ganglion of one eye were destroyed the function of the other ganglion would probably be abolished in most cases.

Still the difficulty remains as to the cause of the frequent association of loss of speech with right hemiplegia. Is it not possible that the usual limitation of the power of writing to the left side of the brain may after all have something to do with it? The motor centres of speech and the motor centres of writing are evidently in close functional connexion: when a person is writing down the results of reflection, he rehearses mentally or actually whispers the words in which he is going to express himself; so that there is a constant interplay between the motor intuitions of speech and those of writing. Now if these different motor centres sympathise so intimately in healthy action, it is presumable that they will sympathise in disease; wherefore an injury to the motor nuclei of writing may, though not directly implicating the motor nuclei of speech, still abolish the function of the latter by sympathetic or inhibitory action. But whether this be so or not, it is possible to suppose some anatomical differences, either in the brain-structure or in the disposition of the bloodvessels, which might account for the frequent coincidence of aphasia with right

hemiplegia, without the necessity of supposing a location of the faculty of speech in one side of the brain. There must be some such difference to account for right hemiplegia being more common than left hemiplegia.

A few last words touching the state of the intelligence in aphasia. So far as we are able to interpret phenomena, it appears that the intelligence is preserved in a few cases, more or less impaired in the majority of cases, and sometimes entirely abolished. No hard and fast line applicable to every case can be drawn. Just as there may be every kind and degree of impairment of speech, so there may be every kind and degree of impairment of intelligence. There are, however, certain general considerations which may profitably be borne in mind when the question of the state of the intelligence presents itself for determination. If what has been said of the physiology of language be correct, and the motor intuitions of speech play the important part in thought which has been assigned to them, it is hard to conceive the abolition of them without serious impairment of intelligence. Though a patient may manifest an intelligent appreciation of simple questions, he may still be incapable of anything like sustained thought. This is a fact which it is not superfluous to note; for some inquirers, having found by simple trials that there was not sheer imbecility in a particular case of aphasia, have hastily concluded that there was no mental impairment. It is not always safe to accept the patient's opinion of his entire capacity, if he should so far recover as to be able to give it; for when he is cut off from his relations with the external world by the abolition of the channel by which he has intelligent communication with it, he is to some extent in the position of a person who is dreaming. And as one who dreams sometimes fancies that he is reasoning most logically, and speaking most clearly and even eloquently, when he is all the while talking nonsense, so an aphasic person may imagine his mental operations to be perfect when they are really very defective. The proof that this is so in some instances is his inability to learn to express himself by some language of signs, which would not be a difficult acquisition if the intelligence were unimpaired. When, however, he cannot learn to do this, it is reasonable to conclude either that he has no ideas to express, or, at any rate, that he has not sufficient intelligence to learn a language which it is not difficult for any person of common intelligence to acquire.

ON THE DETECTION OF LUNG-TISSUE IN THE EXPECTORATION OF PERSONS AFFECTED WITH PHTHISIS.

BY SAMUEL FENWICK, M.D.,

ASSISTANT-PHYSICIAN TO THE LONDON HOSPITAL, LATE ASSISTANT-PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

UPWARDS of twenty years ago Schroeder van der Kolk discovered that the sputa of persons affected with phthisis frequently contained particles of lung. Some time afterwards Dr. Andrew Clark also observed and published the same fact. The method of examination adopted by each of these pathologists was nearly the same. The expectoration was poured upon a flat surface, and any particles that seemed likely to contain the elastic fibre were picked out with needles and placed beneath the microscope. Considerable care and experience were, however, required for this procedure, and the physician could never be certain that some portions of the lung-structures had not been overlooked. Whilst engaged in experiments on this subject, it occurred to me that if the mucus of the expectorated matters could be liquefied, any fragments of pulmonary tissue enveloped therein would be deposited, as the salts of the lithic and oxalic acids are, in the urine. This anticipation proved to be correct; for I found that, when the sputa of persons suffering from consumption were boiled with soda and allowed to stand for a short time, particles of the elastic fibre of the lung were precipitated. The results obtained by the examination of the expectorations of one hundred real or suspected cases of phthisis were published in the forty-ninth volume of the Transactions of the Royal Medical and Chirurgical Society, and it was proved that fragments of pulmonary elastic fibre can easily be detected in the sputa whenever ulceration of the lungs is progressing. I have during the last three years had constant opportunities of testing the value of this means of diagnosis, and I trust that the conclusions at which I have arrived may prove interesting and useful to the profession.

It will be readily understood that some alteration in the appearance of the lung-tissue is produced by both the disease and the alkaline solution; nevertheless recognition of the various tissue-elements is a simple matter. In some instances the particles are so small that they seem like a few fine fibres disposed in a circular or semicircular manner; in others, whole

FIG. 1.

Fragment of lung from the expectoration of a person affected with phthisis. Magnified 150 diameters.

FIG. 2.

Portion of the elastic fibre of the lung in the expectoration of a person affected with phthisis. Magnified 150 diameters.

pulmonary vesicles can be recognised, or a number of such cells may be seen united as an irregular fragment. The larger bronchial tubes undergoing disintegration are occasionally represented by a simple layer of membrane; but the smaller tubes yield portions of considerable length, exhibiting their branching arrangement. In the majority of cases we meet with all these different forms of lung-structure in a single specimen of expectoration; and we may estimate the rate at which the disease is progressing by counting the particles.

The number of cases analysed in the present paper is 141. In all of them I have recorded, in my notes, the history, general symptoms, physical examination of the chest, and the microscopical examination of the sputa. As the cases are taken without selection, they fairly show what amount of assistance the physician may expect to derive from this method of diagnosis.

There are no cases of phthisis more difficult of diagnosis than those in which that disease is associated with inflammatory affections of the air-passages. In such the microscopical examination of the sputa has often proved of the greatest value, and in a few minutes has decided the diagnosis.

I have notes of 23 cases of bronchitis in which phthisis was suspected, either from the general symptoms or from the examination of the chest. In 11, lung-tissue was found in the sputa. Three of these ceased to attend the hospital shortly after the date of examination, but the subsequent history of the remainder proved that consumption was present. Of the 12 in which pulmonary elastic fibre was not found, 6 shortly ceased to attend, and the remaining 6 proved to be cases of uncomplicated bronchitis. As far therefore as can be ascertained, although the general symptoms and the examination of the chest gave uncertain results, the microscope had distinctly indicated the nature of the disease in all.

When phthisis occurs in persons who have for many years suffered from chronic catarrh the diagnosis is often very difficult. The resonance on percussion in the upper parts of the chest may be abnormally clear from the existence of emphysema, and auscultation frequently fails to reveal positive signs of the presence of tubercle. The following case is an example of this form of disease, and shows the value of microscopical examination of the sputa.

A man, thirty-two years of age, had been subject to cough for six years, and had suffered from hæmoptysis two years before his admission as an out-patient at the Victoria-park Hospital. There was no dulness on percussion; dry rhonchus could be heard over the whole of the anterior part of the chest, and moist râles were present at the bases of the lungs. The expectoration in twelve hours amounted to seven drachms of thin, watery fluid; but when examined microscopically a considerable amount of pulmonary elastic fibre was found.

I have notes of a number of cases of this description, in which the use of the microscope has been of value, and whose subsequent histories have confirmed the truth of the diagnoses. In the following no lung-tissue could be discovered in the expectoration, although the general symptoms seemed to indicate phthisis more clearly than in the case I have just quoted.

A woman, five months pregnant, had suffered from winter cough for eight years, but for a few months had rapidly lost flesh and strength, the cough being very severe and the expectoration copious. I believed I could detect a slight deficiency in the resonance on percussion in the right subclavicular region. There were mucous râles in the anterior parts of the chest, with harsh inspiration at the base of each lung. I could find no lung-tissue, but the symptoms were of so suspicious a nature that I examined the sputa again after a fortnight, but with the same result. She steadily improved under treatment, and at her last visit she reported that her cough had disappeared.

In the next case phthisis was suspected chiefly from the appearance of the patient and the severity of her symptoms.

A woman, forty-one years of age, had been subject to bronchitis for five years; but had been much worse than usual during the four months preceding her visit to me. There was rapid loss of flesh and strength, severe sweatings, and profuse expectoration. Pulse 120. I could discover no dulness; but there were mucous râles at the base of each lung. No lung-tissue could be found in the sputa. She remained for some time under treatment, with but little improvement; and, when she ceased to attend, I suspected that she suffered from phthisis, although the microscope, as well as auscultation, had failed to detect ulceration of the lung. Two years afterwards she returned with a similar attack, having in the meanwhile been healthy.

It is often difficult to diagnose phthisis at an early stage, when, along with the physical signs of bronchitis, the larynx is diseased. The indications presented by the vocal resonance are not to be obtained; and, if there be no distinct dulness on percussion, one is left in doubt as to the nature of the case. The difficulty is still further increased if the occupation of the patient has exposed him to the action of dust, or to the prolonged use of the voice.

An omnibus conductor, thirty-seven years of age, came under my care in July, 1866. He had loss of voice, with cough and a little expectoration, for two months. Pulse 84. I fancied that I could detect a slight diminution in the percussion note below the right clavicle; but of this I could not satisfy myself. The only sign on auscultation was a dry rhonchus diffused over both sides of the chest. He brought to me the expectoration of three mornings, which only amounted to seven drachms of thin mucus. The microscope showed forty-one pieces of lung-tissue in it. Hæmoptysis occurred two weeks afterwards, and his pulse rose to 96. In December, 1866, he had lost in weight 7 lb., and the dulness below the clavicle was distinct. He remained under observation until the following May, but was greatly emaciated when I last saw him.

A carman, twenty-seven years of age, complained of cough and expectoration for six months, with loss of voice of three months' duration. There had been no hæmoptysis; pulse 108. There was no dulness on percussion, and no sign on auscultation, except some mucous râles at the lower and posterior part of the lungs. There was therefore no evidence of phthisis; but in five hours he expectorated five drachms of brown-coloured, opaque, tenacious mucus, in which the microscope detected fifty-eight fragments of lung-tissue.

Phthisis is often ushered in with an attack of pleurisy. In such cases the development of the signs of consumption is frequently very gradual, and it is only by careful attention to the history of the patient that a correct conclusion can be arrived at. I have notes of some cases of pleurisy in which the slowness of convalescence led to the suspicion of tubercle, but no lung-tissue could be found in the sputa; in all, the subsequent histories proved the disease to have been of a simply inflammatory nature. The following case, however, will show in a positive manner how valuable the microscope may be in the detection of ulceration of the lung.

A man, aged thirty-three years, had been subject to cough for fifteen years, and for six weeks had suffered from pleurisy. The microscope detected twenty-seven particles of pulmonary tissue in the sputa. The effusion slowly disappeared. Four months afterwards mucous râles were detected below the left clavicle. He remained under observation thirteen months, and during the latter part of that time presented all the ordinary symptoms of phthisis.

A striking case of this kind occurred, in which particles of lung-tissue were found in the expectoration. The patient recovered from the pleurisy, the cough disappeared, and he ceased to attend the hospital. Many months afterwards he reappeared, with well-marked signs of phthisis.

I have never detected any pulmonary structure in the sputa of persons affected with uncomplicated pneumonia, although we might imagine that minute portions of lung might be thrown off in this disease. In the following case the microscope enabled me to predict the approach of consumption before any evidence of the presence of tubercle could be obtained by auscultation.

A lady had been suffering from pneumonia of the left lung for three weeks before I saw her. She had been losing flesh and strength, but had no cough before the attack. Neither of the medical gentlemen in charge of the case nor myself could detect any evidence of tubercular deposit in the opposite lung. The expectoration was profuse, but no lung-tissue could be discovered in it. Three weeks afterwards, hearing that she was recovering very slowly, I requested that another specimen of her sputa might be sent to me, and in this numerous particles of pulmonary elastic fibre were found. Some time afterwards physical signs of consolidation were detected at the apex of the right lung, and she died of phthisis eighteen months after the commencement of her illness.

This case shows that we ought not to trust to a single examination of the sputa when the results are of a negative character, but should repeat it from time to time if the symptoms be of a nature to cause a suspicion of phthisis.

From the above facts, there can be no doubt that microscopical examination of the sputa is of great value in all cases where phthisis supervenes on, or is connected with, inflammatory affections of the lung or pleura. But the question may occur to some who have not practised this means of diagnosis—How can the microscope detect pulmonary ulceration so long before its presence is revealed by the stethoscope? The following experiment will give some idea of the delicacy of the test:—

One-tenth of a grain of lung-tissue was divided by needles into ten parts, and one one-hundredth part of a grain thus obtained was placed in the expectoration of a person affected with bronchitis, which had been proved by previous examination not to contain elastic fibre. The mucus was liquefied by boiling with a solution of pure soda, and the mixture was then poured into a conical vessel. The particle of lung was easily removed and examined with the microscope. But as this fragment of lung consisted of from twenty to thirty air-cells, and as the presence of elastic fibre can be determined by means of the microscope in half or in even a smaller part of a single air-cell, it is evident that it may be possible in this way to detect from the four-thousandth to the six-thousandth part of a grain of pulmonary structure in the sputa of persons suffering from phthisis.

Practically, we never have to seek for so minute a quantity of elastic fibre in a specimen of expectoration. I only quote this experiment to show that, as we have the means of detect-

ing pulmonary tissue in such minute quantities, we may reasonably assume that we will be able to obtain evidence of ulceration of the lung long before the destruction of the organ has advanced far enough to produce signs that can be recognised by the stethoscope.

(To be concluded.)

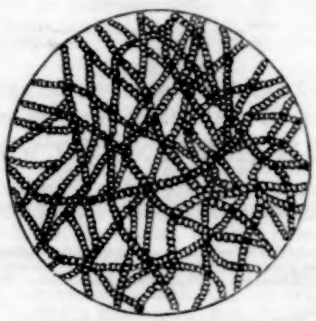
STRUCTURE OF THE ADULT HUMAN VITREOUS HUMOUR.

BY DAVID SMITH, M.D., M.R.C.S.

(Continued from p. 378.)

IT is a general law in the economy that each atom of the body, by its inherent vitality, must appropriate and transform for its own use whatever nutriment it requires. In accordance with this law, it is the part of the structure of the adult vitreous humour to vitalise the histogenetic material which the vitreous fluid contains, for the renewal of its elements, and the maintenance of its transparency. Considered in this light, it is dependent on the ciliary processes for nutriment only in so far as these organs secrete abundantly the vitreous fluid, in which is dissolved a small amount of albumen, but which at the time of its secretion is entirely devoid of organisation. On subjecting a fragment of perfectly fresh vitreous humour to the action of dilute nitric acid, the fibres of the anastomosing cellular tissue are observed, under a high magnifying power, to have strung upon them transparent globules, measuring about $\frac{1}{1000}$ of an inch in diameter. These globules are quite different, but scarcely distinguishable, from the ordinary vitreous fluid, and may not inaptly be compared to a string of pearls. (Fig. 4.) They consist of a viscid, highly transparent

FIG. 4.



Pearly globules attached to the cellular tissue of the vitreous humour. Magnified 200 diameters.

fluid, and cling to the fibres by their own tenacity, or by vital attraction; they have the form of cells, but they are devoid of any cell-wall, and the ordinary vitreous fluid has no effect in dissolving them; they are so closely set as to touch each other, and they completely mask the view of the fibres which they enclose; and they possess a high degree of refrangibility.

Spectra of these globules have been long familiar to natural philosophers and workers with the microscope as frequent sources of interruption to vision in their scientific investigations; but until the present they have eluded the most searching inquiries in the dead subject. The reason of this is that a few hours after death they spontaneously detach themselves from the fibres of the humour, and coalesce into large drops, which in the aggregate have a slightly yellowish colour. A convenient method by which an observer may see these globules in his own eye is by looking through a lens of short focus at the flame of a candle two or three yards distant;* but by thus viewing them it would never be suspected that they enclose the delicate structure delineated in Fig. 1 (page 376). Besides age in the dead subject, these globules are also rendered more fluid and become detached by the addition of the caustic alkalies, or by the application of a moderate heat, disclosing the structure which they obscured; but they are not dissolved or detached by the dilute mineral acids. Respecting the nature of the fluid of which these globules are composed, it presents no tendency to pass spontaneously into a state of fibrillation, and therefore it has no claims to be ranked with lymph or any of the normal fluids of the body which contain fibrin; and in being quite insoluble in the ordinary vitreous fluid, it is at once distinguished from albumen, at least in the condition in which that substance is secreted by the ciliary processes. In its behaviour with chemical reagents, and in being with difficulty coagulated by heat, it answers to the description of the globulin of the blood. But, whatever name be applied to it, there can be no doubt that it belongs to the albuminous type of compounds; and as the vitreous fluid, when secreted, contains no other histogenetic compound than albumen, it seems a safe deduction that these beautifully transparent globules consist of albumen in the act of undergoing a metamorphosis into a higher state of elaboration. As to the office of these globules in the vitreous humour, by forming an impervious coating upon the fibres of the anastomosing cellular tissue, they protect the latter from maceration in the fluid in which it is constantly bathed, and their plastic property will necessarily add strength to the fibres. But their prime function is, no doubt, the supply of nutriment for the fabric of the humour, or for other parts.

Assuming these globules to be derived in the manner already supposed, their formation is dependent on the assimilating power of the tissue of the humour, which in that case must be endowed with a certain amount of vitality. We have abundant evidence of the existence of this force in the humour: in its development in the embryo; in its organisation in the adult; in its undergoing molecular decay, the products of which have been demonstrated in the vitreous fluid by chemical analysis; in its constant maintenance in a state of transparency, though it contains a decomposable structure; and in its undergoing the process of putrefaction after death. It would seem, also, as if the globules adhere to the tissue by the force of vital attraction; for they become detached of their own accord soon after death. But if any doubts exist as to the presence of vital force in the humour, they are at once dispelled by the evidence of pathology. The vitreous body, or the tissue which it contains, is subject to inflammatory action; it throws out and vitalises inflammatory products into organised tissue, or matures them into pus; if the tissue of the humour be broken up by the surgeon or by accident, reaction comes on; and foreign bodies become encysted in lymph in the centre of the humour without obvious assistance from any vascular part of the eyeball. It is presumed, therefore, that these globules or beads of plastic fluid owe their formation to the anastomosing cellular tissue of the humour, accumulating around its fibres by its inherent vitality the albumen which the fluid of the humour contains, and elaborating it by prolonged contact into a compound of higher nutritive value; and the obvious relation of these globules to the tissue of the humour, and their attraction for it during life, give them a special reference to the process of nutrition. Such a process has its prototype in the connective tissues of the body (from which the vitreous humour in the embryo is developed), by the serous fluid of the blood, itself unorganised, being converted into organised corpuscles simply by its passage through the meshes of these tissues. With regard to the reason why the plastic fluid, in attaching itself to the fibres of the humour, assumes the corpuscular or globular form rather than a smooth continuous layer, I do not pretend to offer any precise information at the present time, only that it is a common physical phenomenon in the operation of capillary force.

But besides protecting and nourishing the structure of the humour, the pearly globules of its fibres are probably ultimately destined to serve a still more important end—viz., the nutrition of the crystalline lens. Almost two-thirds of the latter body is embedded in the front of the vitreous humour, both structures lying in close contact. The cellular tissue of the vitreous humour converges towards, and is crowded behind, the crystalline body, to the posterior capsule of which it is adherent, and that so intimately, in the whole of its extent, that the two are never completely separable. The capsule of the lens is a highly transparent membrane, four or five times thicker in front than behind, and in the latter situation forms the only intervening substance between the lens itself and the structure of the vitreous humour. A thin section made in the direction of its thickness, and rendered partially opaque by dilute nitric acid, shows it to be channeled by many tor-

* For the manner in which the structure of the vitreous humour may be viewed entoptically, see Mackenzie on the Vision of Objects on and in the Eye, *Edinburgh Medical and Surgical Journal*, No. 164; also James Jago, M.D., on Entoptics, London, 1864, p. 74.

tuous pores, which form indirect communications between its two surfaces. These pores are occupied by a transparent fluid having all the characters of the pearly globules of the vitreous tissue. Near the centre of the posterior capsule a close network of extremely minute capillary vessels exists in many of the lower animals. The crystalline lens is an isolated body in the interior of the eye, and is dependent for its nutrition on one or more of the media which surround it. In many respects its nutrition resembles the same process in the vegetable kingdom. Thus, its structure continues cellular throughout the whole of its existence;* it possesses no nerves, and therefore its nutrition is beyond the influence of the nervous system; the nutrient fluid which its cells contain is globulin,† an albuminous compound which has no tendency to assume spontaneously a higher grade of organisation; and lastly, when the structure of the lens is once fully formed, it is subject to little change of material. It has long been held that the lens derives the greater part of its nutriment through the vitreous humour, but the structure of the latter not having been satisfactorily determined, the evidence of this was arrived at by "*exclusion*."‡ When the choroid or vitreous humour is inflamed, the products arising therefrom are abundantly found in the neighbourhood of the lens, and the latter also participates in the morbid action. If the vitreous humour be disorganised, or a great part of it lost by accident through a wound of the tunics of the eyeball, without injury of the lens, cataract follows; while if the lens be dislocated from its ligamentary attachment, but still adherent to the vitreous body, it generally remains transparent, unless the latter be disorganised. The convergence of the anastomosing cellular tissue of the humour to the posterior surface of the lens indicates an intimate association of the nutrition of the two structures, and this is peculiarly borne out by the structure of the humour in birds. In that division of the animal kingdom the lens undergoes more rapid molecular changes than in any other, and the individuals of this class have a special provision existing within the eye for the supply of the extra demand which necessarily falls upon the nutritive processes. This consists of a process of the choroid, called the *pecten*, which passes through an opening in the retina at the bottom of the eye, and forward in the substance of the vitreous humour to near the posterior surface and external margin of the lens. Filling up the link between the tip of the pecten and the lens is the anastomosing cellular tissue of the humour, which radiates in straight lines from the former to the latter, thus establishing a communication between the vascular choroid and the lens, and which it will scarcely be doubted conveys nutriment to the latter.

These facts point to the vitreous humour as being the principal source through which the lens is nourished, thus confirming the hypothesis which has all along been entertained; but the manner in which this takes place has never been explained. As the aqueous humour and the ordinary fluid of the vitreous humour contain only a fractional part of formative material, which, moreover, is entirely destitute of organisation, the transudation of these fluids through the capsule, in sufficient quantity to be of any service in the nutrition of the fully-formed lens, would, from the experience we possess of its nature, tend to its disorganisation and opacity rather than its nourishment and transparency. Indeed, the capsule of the lens possesses a power which, whether vital or elastic, prevents the transudation of watery fluids through its walls during life—a power which it loses soon after death, and then it allows ingress to the fluid humours of the eye. The same force confers upon it an elective affinity by which it is enabled to take up the small amount of albumen dissolved in the aqueous and vitreous humours; and, therefore, the anterior capsule is probably also concerned to a small extent in the nutrition of the lens. But considering the facts already stated as to the close relationship of the vitreous body and lens, coupled with the additional fact that the anterior capsule is four or five times thicker than the posterior, we must regard the vitreous humour as the reservoir of its nutritive supply. The plastic substance which I have described as adhering to the vitreous tissue in the form of globules is the only compound which the vitreous humour contains capable of undertaking this office, for which it seems well suited in every respect. Its immiscibility in the ordinary fluid of the vitreous humour enables it to be conveyed to the lens in a concentrated state, ready to be received as nutriment by the latter; its plasticity and higher degree of vitality than the ordinary vitreous fluid give it a greater vital and physical attraction for the capsule; while its identity in chemical and physical properties to the fluid that pre-exists in the cells of the crystalline lens makes it as nearly as possible a certainty that it is the pabulum of that body. As the pearly globules have no proper cell-wall, and are not confined to tubes, the onward movement of these to the lens as the latter has a demand for them must be mainly owing to that vital attraction which everywhere exists between pabulum and tissue, and which in the body generally exerts so much influence on the onward movement of the blood in the capillaries. In the present case, however, the elasticity of the fibres on which the globules are strung, as well as the tension of the humour generally, will combine with the vital attraction to give these globules an onward movement corresponding to the direction of the fibres, which is centripetal, or that towards the lens. Thus the crystalline lens of the eye is supplied with transparent nutriment for the repair of its waste by a simple and highly eligible process. It demands its nutriment in a state of concentration and in a high degree of transparency. The colourless elements of the blood are those only capable of being applied to the nutrition of non-vascular parts; but these elements exist in solution in the serum of the blood in such insignificant quantity, that if the latter were applied directly to the lens it would at once destroy its transparency. But Nature overcomes this obstacle by causing the serum of the blood first to pass through a structureless membrane—the zone of Zinn—to insure its transparency, and afterwards among the meshes of a living structure to separate the formative material from the mass of the fluid in which it is dissolved, and thus by enhancing its vitality renders it capable of ministering to the repair of the lens. This view of the vitreous humour magnifies the importance of its function as a component part of the eye, and makes it as essential to the health of the lens in the adult as it is to its development in the fœtus. Both in the fœtus and adult the vitreous humour is to the lens what the roots are to the plant: it selects the crude material from the blood, elaborates it into nutriment within itself, and, having satisfied its own demands, conducts it onward to the crystalline lens.

(*To be continued.*)

* Carpenter's Human Physiology, 4th edition, p. 254.

† Op. cit., p. 254.

‡ The structure of the humour, as now revealed, renders this supposition almost a certainty.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

ON Saturday last the following operations were in the list for performance by Sir William Fergusson:—Two amputations of the thigh; two operations for cleft palate; removal of fatty tumour from the neck; for onychia; division of nerve for tic douloureux; besides an operation by Mr. Henry Smith. The light was at times most unfavourable, but nevertheless a great part of the list was got through, though when we left at four o'clock there was still a tumour or so waiting to be cut out. We witnessed, so far at least as such an operation *can* be seen by a bystander, the closure of the cleft palate in a lad upon whom Sir William had operated unsuccessfully two years ago, the two amputations, and the operation for tic.

The amputations of the thigh were both interesting. In one case the patient was a man past the middle period of life, who had been renowned for agility, and who had more than once saved life by jumping into the water and swimming to the help of a drowner. Five years ago he strained his left knee, and shortly afterwards noticed a swelling about the upper and back part of the leg, which went on increasing in spite of treatment. At the time of operation there was a large hard tumour (osteo-sarcoma), involving all the upper part of the tibia, and possibly of the fibula, and extending a short distance up the femur. The limb was rigidly flexed, and the joint had the ap-

pearance of being dislocated. Sir William removed the limb by quadrilateral flaps, including muscular tissue, and remarked that the mode of amputation was a composite one, to which no particular name could be given. He thought the point after all was to get a convenient covering to the bony stump, and this was best attained by different methods in different cases. The amputated limb was not then examined, but put aside for careful dissection.

The other case was that of a cachectic lad, along the track of whose right femur were numerous apertures of sinuses discharging pus, and whose knee-joint apparently contained matter. It was the old story: the boy had had periostitis three years ago, followed by necrosis. The limb was amputated by the ordinary flap operation at the upper third of the femur; Sir William Fergusson remarking that the case was one in which formerly, and perhaps even in the present day, amputation at the hip-joint might have been thought necessary, so high up did the disease appear to extend. He felt sure, however, that the thickening in the part of the femur left behind was simply from new bone; and it was manifestly very important to avoid, if possible, the more formidable operation. Mr. Henry Smith thoroughly controlled the femoral artery in both these cases with his thumbs.

In the case of an elderly man who had suffered from tic for several years past, the inferior dental nerve of the right side was divided. Stretching the lips asunder with two fingers of the left hand, and feeling for the mental foramen with one of these, Sir William cut down upon the nerve with a small tendon knife, which he passed quite into the canal. He had performed a similar operation four months ago, and it was followed by relief for several weeks. It is not Sir W. Fergusson's experience that there is any advantage, as supposed by some, in removing a portion of the nerve: simple division does quite as much good. The relief is always temporary: at least he has met with but few exceptions to this rule. It is noteworthy that it often happens that no relief is obtained for the first week after the operation; then the pain gets gradually less, and the patient may be free perhaps for three months. As a general rule, the oftener the operation is repeated, the shorter is the period of immunity procured by it. This man, it should be said, had been under every variety of treatment without effect.

CHARING-CROSS HOSPITAL.

A CASE OF PERIOSTEAL RHEUMATISM.

(Under the care of Dr. SALTER.)

THE following case, and that which we publish from the Farringdon Dispensary, furnish good examples of the beneficial influence of iodide of potassium upon patients whose ailments agreed in the circumstance of being periosteal, but differed apparently in their bases.

Harriet Q——, aged thirty-four, married; never had any children; had one miscarriage eight years ago, and no other pregnancy. Husband a very steady man, by occupation a hatter. The woman is pallid, thin, and cadaverous-looking. She enjoyed uninterrupted health till seven years and a half ago, when she had the small-pox. On first going out after her recovery she caught a violent cold, which gave her rheumatism in her head and neck, the pain being so severe that she was obliged to take to her bed again. It affected the scalp, forehead, and nape of the neck, and was of a gnawing character, with occasional stabs. The surface was excessively tender. From the head and neck it extended in a day or two to the shoulders and arms, which became the seat of equally severe pain, tender to the slightest touch, and quite helpless, so that she could not raise her hand to her mouth. In two months she was sufficiently well to get out, when she caught another cold, with the same result; but this time it fell upon the hips, thighs, and legs. As on the former occasion, it did not attack the joints particularly, but more the shafts of the limbs and the fibrous tissue of the muscles. She was confined to her bed for seven weeks; and the limbs were as painful, tender, and immovable as before. Then, for three or four months, she was pretty well, with occasional attacks of pain, for which she would take to her bed for a day; but the pain was nothing but what she could very well bear. She then experienced the severest attack she has ever had; it affected every part of the body, and confined her to bed for four months. It was during this attack that she first noticed the appearance of lumps in her head and forehead. They appeared on the spots of the greatest pain, and were so tender that, to use her own expression, "she was afraid of anyone coming near her." They were six or seven in number; they did not come out all at once, but in succession; they were fixed on the same spot when once they came out; they were considerably raised, those on the forehead being conspicuously visible; they appeared hard, and were about the size of a halfpenny. There was no redness. After remaining out for some time, the lumps in the head and forehead went away, for the most part, as she convalesced; but one of them remained, and has remained ever since. From the date of this first attack accompanied with these periosteal swellings, up to two years ago, she had five or six separate attacks, each attended with the appearance of fresh lumps on the scalp and forehead; between these attacks she partially recovered, but never completely, constantly suffering from pain. Three years ago similar swellings appeared on the shins, accompanied with the same aching, tenderness, and nocturnal exacerbations as those on the head. After a little time they went away; they then reappeared, and from that time they have never left her, varying from time to time in number, size, and painfulness, but never completely disappearing. Two years ago the same state of things appeared on the forearms, all along the ulna from the olecranon to the wrist. From the arms the lumps have completely gone away three or four times, and then come on again whenever she has had one of her rheumatic attacks. She has not lost them now for five months. The appearance of her arms and legs is very peculiar; they look as if they were affected by rickets, the ulnæ appearing as if they were bent outwards and the tibiæ forwards; in fact, their cutaneous surfaces are one long node from knee to ankle and from elbow to wrist. The edge of the shin-bone and the sharp edge of the ulna have quite lost their original shape, seeming two or three times as thick as they ought to be, undefined, nodular, and uneven. They are acutely tender, and the aching pains at night almost entirely deprive the patient of sleep; indeed, for the last three or four weeks the pain has been constant, day and night.

Such was the patient's state on her admission into the hospital. She was at once put upon iodide of potassium (ten grains thrice a day) and a nightly sedative. Any local application was purposely avoided, that the effect of the internal administration of the iodide upon the local swellings might be the more clearly shown.

The effect was marked at once: the second night she slept, and the pain abated; more so the third night, and so on. By the end of a week she was easy, and the nodes were conspicuously subsiding in the arms, but less so in the legs. By the end of a fortnight the swellings in the arms were almost gone, and she was sleeping every night comfortably. The patient being virtually cured, and it being possible for her to continue the same treatment as an out-patient, she was discharged, as her bed was wanted for a more urgent case.

In relation to this case, Dr. Salter drew attention, in his clinical remarks, to the following points:—1st. The rheumatic nature of the affection. 2nd. Its almost exclusive periosteal seat. 3rd. That it issued in the production of true nodes, having all the anatomical characters of true nodes. 4th. The nocturnal exacerbations. 5th. The rapid cure by iodide of potassium. 6th. The resemblance of the case in all these respects to syphilitic periostitis. With regard to the first point, Dr. Salter based his opinion on the facts, that the symptoms first appeared, and afterwards reappeared, on exposure to cold, and just that kind of cold that is most fruitful of rheumatism—exposure after convalescence; that the pain was of rheumatic character; that the joints were, clearly at first, and now and then afterwards, to a slight extent involved; and that fascial and aponeurotic rheumatism with nocturnal exacerbations is a well-known and recognised affection. Moreover, there was not the slightest reason to believe that the woman had ever had syphilis. With regard to the three primary facts—the formation of true periosteal nodes, the nocturnal exacerbations, and the cure by iodide of potassium—Dr. Salter stated that he had seen numbers of similar cases, and that they have a well-marked individuality as a group. Their diagnosis from syphilitic periostitis is not always easy; sometimes it is impossible, and for this reason—that evidence of syphilis and evidence of rheumatism coexist, the symptoms not manifesting themselves till after both the morbid states have clearly shown themselves. In such cases the state may be either complex or hybrid, or the symptoms may depend on the one or the other cause singly; the existence of syphilis not negating pure periosteal rheumatism, nor evidence of rheumatic tendency negating pure syphilis. Dr. Salter had, however, seen cases in which the manifestation of the symptoms seemed to depend upon a concurrence of the two causes, one apparently taking the place of a predisposing cause, and the other of an exciting

cause. Thus he had seen rheumatic cases in which the rheumatism did not take on the periosteal form till after syphilis had been contracted, and cases of syphilis in which the periosteal affection did not show itself till the patient was thrown into the rheumatic condition. One thing, however, was very satisfactory—that, however uncertain the diagnosis might be, there was no uncertainty about the treatment; iodide of potassium was the inevitable cure, to whichever cause, or to what proportion of either cause, the symptoms might be attributable. It was quite curious to see the way in which not only the symptoms, but the anatomical condition, yielded to the internal administration of that remedy in the present case. You could almost see the nodes subside from day to day; in one fortnight the ulnas, whose deformity on the patient's admission was so striking, had almost resumed their original shape.

Dr. Salter remarked, in conclusion, that he thought iodide of potassium was indicated in all cases of rheumatism, whether articular or otherwise, in which the pain was characterised by nocturnal exacerbations, and that we should not be far wrong in letting this single circumstance determine our employment of it.

FARRINGDON DISPENSARY.

A CASE OF ACUTE SYPHILITIC PERIOSTITIS, OCCURRING IN THE EPILEPTIC DIATHESIS; RECURRENCE OF FITS; SUCCESSFUL TREATMENT WITH LARGE DOSES OF IODIDE OF POTASSIUM.

(Under the care of Mr. CHARLES JOHN SMITH.)

M. S——, a married woman, aged twenty-eight, came under treatment on October 19th, with acute periostitis. Her history was purely syphilitic; she had "sores and buboes" within a month after her marriage; secondary symptoms showed themselves in about two months; she had "eruptions of brownish spots," and sore throat; her hair came off; she had pains in all the limbs, and two attacks of iritis. She said that six months ago her right arm was painful, and began to swell; three months later a swelling, accompanied by pain, appeared on the right collar-bone. After a time she went to a chemist, who gave her some pills, under which she got rapidly worse, her throat, mouth, and gums becoming dreadfully sore: so she came to the Farringdon Dispensary. Mr. Smith found her profusely salivated, and the breath very fetid; the arm very hot, very tender, and much swollen—in fact, acute periostitis, extending from the lower third of the humerus to half way down the ulna. At the sternal end of the clavicle was a node, the size of half a small orange, hard, hot, and very tender. She said that for nights she had had no rest, owing to the agonising nature of the pain. She was ordered chlorate-of-potash gargle, ten grains of Dover's powder at bedtime, and iodide of potassium. The effect of this treatment was most marked. She at once obtained a good night's rest, the salivation speedily subsided, the arm and clavicle rapidly improved, pain ceasing almost entirely in a few days, and in ten days nearly all trace of periostitis had vanished, scarcely any thickening to be noticed in the arm, while the clavicular node was painless and about half the size.

On November 16th she declared herself "nearly well." The treatment will, of course, be continued for a time. At first she took six-grain doses of the iodide, but in the course of a day or two it was raised to fifteen grains three times daily. After being under treatment for a few days, she complained of having had something like *petit mal*, and it was found that twelve years ago she had had very violent fits of a true epileptic character, but as soon as menstruation was properly established the fits ceased. She had no return of them until last June, when, always preceded for half an hour by giddiness, she suffered from them two or three times a week, and so up to the time of coming under treatment at the dispensary. There has been no fit since.

This case, Mr. Smith remarks, appears to present several interesting features. First, it was no doubt in the outset an ordinary case of chronic periostitis, much more usually the form met with, at any rate of late years. Secondly, it manifested the baneful influence of mercury, by which he believes the severity of the attack was determined, and acute inflammation set up; next, occurring in the epileptic diathesis, it excited a return of epilepsy, after a lapse of twelve years; and then it furnishes an excellent example of the wonderful effect, and rapid effect too, of iodide of potassium, the value of which in the treatment of syphilis must soon, he thinks, become universally admitted, to the total exclusion of mercury. It certainly appears important to give large doses of this drug; nor does there seem to be any reason to hesitate for fear of depressing the patient; the lowering tendency of iodide of potassium has been greatly exaggerated. At any rate it may safely be said that the tolerance of large doses is fully equal to the tolerance of small; and he does not remember any cases the worse for it, where the necessity for its use was apparent.

THE USE OF CARBOLIC ACID.

IT is interesting to note the various opinions, and still more curious to observe the differing experience, in reference to the use of carbolic acid in surgery. We briefly record to-day results of some further inquiries upon this point in metropolitan hospitals.

At *St. Bartholomew's* Mr. Paget does not as yet feel able to form an opinion on Professor Lister's mode of using carbolic acid from any observations of his own. In the few cases in which he has tried it, it has been useless; but this may possibly have been, Mr. Paget thinks, from some error in the mode of application. He intends to make further trial of the agent.

Mr. Holmes Coote has found carbolic acid very useful as a caustic in the treatment of syphilitic sores, mucous tubercles, &c., as well as generally in foul wounds. He does not approve of Lister's method, which he considers meddlesome. Mr. Coote's experience is that wounds unite readily when left alone.

So again at *Guy's*. Mr. Birkett tells us that he has not had much experience of carbolic acid. He finds his cases do very well on the usual plan.

On the other hand, Mr. Bryant, at the same hospital, gives a more favourable opinion of the substance. He is giving Lister's plan of the treatment of wounds a good trial, and for some months has been washing out all wounds made by operation with a watery solution of carbolic acid, and dressing them with a solution of the same acid in olive oil. Mr. Bryant says that his operations have also certainly done well, for he has obtained in some cases primary union of the wounds, whilst in others there has been little or no purulent discharge. How much of such success depends upon the plan of dressing, however, he cannot say, for he has at the same time applied torsion to all the vessels, and used sutures as little as possible. He has also followed the practice, which he has adopted for some years, of applying firm pressure to all wounds by means of pads of lint and strapping. Upon the whole the results have been good, and he is disposed to attribute them in a great measure to the use of the carbolic acid. The strength of the watery solution employed by him is one part in thirty; of the oily, one in ten.

Provincial Hospital Reports.

STATE CRIMINAL ASYLUM, BROADMOOR, BERKS.

A CASE OF GENERAL EMPHYSEMA FOLLOWING RUPTURE OF THE STOMACH; DOUBLE INTUSSUSCEPTION OF THE ILEUM.

THE following case, which presents many features of interest, is related by Mr. A. J. Newman, assistant medical officer. Attention is directed to the remarkable absolute and specific brain weights, the large size of the stomach, the presence of two examples of intussusception, and, lastly, the supervention of general emphysema, due, as Mr. Newman believes, to the escape of air from the enormously distended peritoneal cavity.

S. R——, aged thirty, male, died on November 25th, 1867. He was admitted to Broadmoor in 1865, having been found insane on arraignment upon a charge of murder. During his residence in the asylum he was in a state of chronic mania, low-spirited and irritable, an enormous eater, seldom employing himself, and prone to strike without previous warning anyone within his reach. Had been deaf for the last fourteen

years, and was said to have been an inmate of St. George's Hospital when a child for a blow on the occiput with an oyster shell.

History of the illness.—About eighteen hours before death he was seized with violent vomiting, followed in about fourteen hours by great tympanitic distension of the belly, and collapse. The tympanitis gradually increased, and became at last very marked. About half an hour before death emphysema was observed about the neck and right arm. This gradually extended to other parts of the body, and even after death it increased a little.

Autopsy twenty hours after death.—Weather dry; temperature 40° F. Cadaveric rigidity and discoloration are well marked. There is general emphysema of the surface of the body, with the exception of the left forearm and the legs below the knees. The scrotum is as large as a man's head, and is semi-transparent and tympanitic; the penis is obliterated; the abdomen is greatly tympanitic; the bones of the head are thick, and bear no scar or sign of fracture.—Brain: Dura mater slightly adherent to calvaria and left hemisphere; pia mater strips with difficulty; the grey matter of convolutions is very thin, firm, and dense in structure. The absolute weight of the brain is unusually high, and so are the specific weights. The former is 53¾ oz. The specific weight of the white matter of the convolutions is 10·43 oz., and of the grey matter 10·35 oz. and 10·37 oz., on the left and right hand side respectively in the frontal region, and averaged 10·39 oz. in four separate weighings of the more posterior portions.—Spinal cord: Grey matter firm, small in quantity, and light in colour. The specific weight of a section in cervical region is 10·39 oz.; in dorsal and lumbar regions 10·38 oz.—Chest: Left pleuræ firmly adherent for a small space in the subscapular region, and the lung opposite rather hepatised in character. The aorta contains numerous small atheromatous deposits. Other organs healthy.—Abdomen: Contains a large quantity of flatus (external to intestines), and a considerable amount of reddish brown fluid mixed with flocculent matters and particles of food. Two examples of intussusception of the ileum are observed about the centre of the cavity, lying transversely, and in juxtaposition (one beneath the other). Each invagination is to the extent of about two inches, the enwrapped portions of intestine not tightly held nor much discoloured, and can easily be drawn out. They are about eighteen inches apart, and the first is sixty inches from the duodenum. The intestine between the invaginated portions is empty; above it is distended with food and air; below flaccid, and containing only a little chylous matter. Large intestine healthy; nowhere in peritoneal cavity, or in intestine, is there observed any deposit of lymph or great discoloration, but there are some long, dark, irregular marks, apparently slight abrasions, in the parietal portion of the peritoneum, low in the iliac region on each side. The stomach contains a good deal of food, and is much enlarged, measuring at its greatest curve 27½ inches. In the line of this curve, and at about three inches from the œsophageal orifice, there is a ragged opening about half an inch in circumference. The coats of the stomach are dark and extremely thin, and at some places at the larger end of the organ the internal coat is abraded. The left kidney is large and pale, and has an adherent capsule. The other organs of abdomen are apparently healthy.

Cases of general emphysema are comparatively rare, and are always interesting. In THE LANCET of June 13th, 1863, Mr. Newman published the notes of a case in which the escape of air was due to the ulceration of adherent pleuræ in a case of phthisis. That case and the one here narrated form interesting medical adjuncts to the case of general emphysema with a surgical origin published in THE LANCET of Nov. 30th of last year, by Mr. John Adams, of the London Hospital. The great distension of the abdomen in the case of S. R—— came on only a few hours prior to dissolution, and the sudden advent of the emphysema just previous to death would suggest the giving way at that moment of some part of the peritoneum, most probably at the seat of discoloration and apparent abrasion. The long-delayed collapse would lead one, Mr. Newman says, to conclude that the rupture of the stomach only occurred a few hours before death. Following the rupture came the double invagination of the gut, most probably caused by the sudden increase of peristaltic action due to the presence of the foreign matter poured into the peritoneal cavity through the rent in the stomach.

ADDENBROOKE'S HOSPITAL, Cambridge, has received, through its treasurer, a legacy of £450, under the will of the late James Reynolds, Esq.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOV. 24TH, 1868.

MR. SAMUEL SOLLY, F.R.S., PRESIDENT.

ON CERTAIN POINTS IN THE PHYSIOLOGY AND PATHOLOGY OF THE FIFTH PAIR OF CEREBRAL NERVES.

BY JULIUS ALTHAUS, M.D., M.R.C.P.,
PHYSICIAN TO THE INFIRMARY FOR EPILEPSY AND PARALYSIS.

THE author introduced his subject by some remarks on the physiology of cerebral nerves generally, saying that the only two pairs of nerves the function of which was not yet accurately determined were the pneumogastric and the fifth, both of which were endowed with far more complex functions than the rest of their fellows, and were also less subject to disease, without simultaneous lesions of important neighbouring organs. We had therefore, until now, been obliged, with respect to them, to trust almost exclusively to one of the two sources of our knowledge as regards nervous function—namely, the results of vivisections in animals; while the corrective influence of pathological observations had been wanting. Dr. Althaus then gave his reasons for considering the evidence derived from pathological cases, occurring in otherwise healthy adults, superior to that merely deduced from vivisections; and proceeded to give the details of a very curious and, as it appears, unique case of total loss of function of the whole fifth pair, unaccompanied by any other affection of cerebral or nervous matter, and which could be looked upon, in a certain sense, as a complete physiological dissection of the fifth nerve. The case occurred in an otherwise healthy Australian sheep-farmer, and was due to exposure to cold. There were at first symptoms of inflammation, and afterwards compression and atrophy of the nerve. The case came under the author's care about two years after the commencement of the affection. There was then total loss of muscular sensibility about the face, and a peculiar expression of the features in consequence of it. Vision was obstructed by leucoma of both corneæ; yet the patient suffered much from photophobia, although very little light could penetrate to the retina. An ophthalmoscopic examination of the fundus oculi showed the optic disc, as far as it could be seen, quite normal. The common sensation of the face and scalp was entirely lost in both sides. The sense of temperature was completely absent, and the senses of touch and locality were also lost. The conjunctiva was anæsthetic, the secretion of tears arrested, but there was pathological hypersecretion of conjunctival mucus. The mucous membrane of the nose was quite insensible, and its secretion much augmented. The sense of smell was in no way impaired. The mucous membrane of the mouth, including the tongue, was also anæsthetic. The secretion of saliva was arrested, but the flow of buccal mucus increased. The tongue had been severely bitten, as the patient was not at all aware of biting it whenever he did so. The sense of taste was preserved. The muscles of mastication were paralysed; and the patient complained of a rushing noise in the head, which was probably due to paralysis of the tensor tympani muscle, which is animated by the minor portion of the fifth nerve. The sense of hearing was normal, and there were no other morbid symptoms. The author therefore concluded that the pathological lesion was confined to the course of the fifth nerve between the pons Varolii and the Gasserian ganglion. It could not be more peripheral, because not a single fibre of the trifacial nerve had escaped the injury; and it could not be more central, because there was no symptom of disease of the pons. The treatment consisted in the systematic application of the continuous galvanic current. No medicine was given. After three months' treatment the patient was considerably improved in every respect, and his sight so much better that he could again guide himself in the streets, and follow a light occupation.

Dr. Althaus concluded his paper with some remarks on various points in the physiology and pathology of the nervous system which were suggested by the phenomena observed in this case. 1st. Alluding to the researches of Magendie and Claude Bernard, who had endeavoured to prove that the olfactory was not the only nerve of smell, but that the fifth had a great deal if not everything to do with it, the author considered his case to prove the contrary. 2nd. Photophobia in this case had evidently little or nothing to do with the condition of the optic nerve or the retina, but was a neurosis of

the corneal branches of the fifth nerve, and cured by galvanisation. 3rd. The question whether the sense of taste was dependent upon the glosso-pharyngeal nerve, or upon the lingual branch of the fifth, was one about which the greatest discrepancy existed amongst the best observers. The author thought his case proved that, although the special sensation of taste was due to the glosso-pharyngeal, yet the quickness of its perception was, in the anterior part of the tongue, materially enhanced by a normal condition of the fifth pair. 4th. The special kind of nervous influence by which the secretion of the mucous membranes of the eye, nose, and mouth was *excited*, and by which it was *regulated*, had hitherto not been investigated. Ludwig had shown, with regard to salivary secretion, that branches of the fifth were the exciting, and sympathetic fibres the inhibitory, nerves. The author thought his case proved that just the reverse obtained as far as the secretion of conjunctival, nasal, and buccal mucus was concerned; and that for this latter function the sympathetic was exciting, and the trifacial inhibitory. 5th. The pathology of tinnitus aurium was obscure. The author believed it to be, if not always, at least frequently, a symptom of neurosis of the fifth nerve. 6th. The present case seemed to settle the question as to the precise way in which the continuous galvanic current acted on the nervous centres. Dr. Althaus had always thought that the galvanic impression was reflected from the peripheral branches of the fifth to the base of the brain. This was now proved to be correct; for it appeared that when the reflex function of the fifth pair was in abeyance, no cerebral symptoms could be produced by the application of a powerful current to the head or face, although the physical relations of the skull, brain, and bloodvessels had not been altered. The transmission of the continuous galvanic current to the brain was therefore effected, not physically, but physiologically, by nervous influence.

After a few words of general commendation from the President,

Mr. CARTER asked for information with regard to a case of insensitiveness of the fifth pair related by Duchenne. He also observed that the dependence of photophobia on the fifth pair, its independence of the retina, and its curability by galvanism, had long been known to ophthalmic surgeons; and added that ophthalmic practice afforded daily proof that irritated conditions of the fifth were formidable obstacles to the nutrition or repair of the tissues supplied by the irritated filaments.

Dr. ANSTIE called attention to the fact that the changes in the case related by Dr. Althaus were similar to those recorded by himself and others in cases of severe neuralgia, and remarked that this resemblance between secondary effects was suggestive of a more intimate relation between pain and anæsthesia than was commonly recognised. He did not think the negative evidence of Dr. Althaus's case sufficient to prove that the fifth pair did not influence the nutrition of the hair, and cited cases, his own amongst others, in which temporary grayness had been produced by neuralgia.

Mr. SOELBERG WELLS referred to the differences of opinion as to the cause of the corneal mischief in such cases: one view being that it was due to impaired nutrition; another, that it was due to the unfelt irritation of foreign substances. He described the experiments of Snellen and Meissner.

Mr. SAVORY considered that the paper would hereafter be regarded as one of the most important and valuable ever read before the Society. He referred to the question of taste and smell; and enlarged upon the importance, for the discharge of nervous function, of a healthy condition of the tissue surrounding the peripheral extremities of the nerve.

Dr. BROADBENT thought the case showed rather that photophobia was independent of the fifth nerve than dependent upon it.

Dr. RUSSELL REYNOLDS described a case of partial loss of function of the fifth nerve of one side only. In this patient there was the statuesque expression described by Dr. Althaus, the sense of smell was perfectly retained, and there was excessive discharge from the mouth.

Dr. WILLIAM OGLE took exception to two points in the paper. He did not see how an intracranial affection of the fifth pair could possibly arrest the formation of saliva, because the nervous supply of the parotid gland, although derived through the auriculo-temporal branch of the fifth, comes in reality from the seventh, through the small petrosal nerve, which joins the auriculo-temporal in front of the otic ganglion. Not only had this been clearly shown by dissection, but Schiff had succeeded in dividing the small petrosal nerve, and in arresting the reflex formation of saliva. As long as the seventh remained intact, and the glosso-pharyngeal as an afferent nerve, he did not see how the formation of saliva could be interfered with. Moreover, he heard of the copious flow of fluid from the mouth, and he had heard no evidence that this fluid was not saliva, doubtless mixed with altered mucus. Next, he objected to the suggestion that a copious flow of alkaline fluid could be a substitute for saliva as an aid to digestion. Saliva was slightly acid, and if it were alkaline its power to convert starch into sugar would be interfered with. With regard to the sense of taste, he thought it was well established that this sense was due to the fifth in the anterior third of the tongue, and to the glosso-pharyngeal in the posterior two-thirds. The glosso-pharyngeal was especially sensitive to salt, sweet, and bitter flavours; the fifth to acids. It was unfortunate that acids had not been tried. The interval of six or seven seconds that elapsed before sapid matters placed on the tip of the tongue were tasted was doubtless due to the time they required to creep over the surface into the district of the glosso-pharyngeal.

Mr. CHARLES MOORE referred to cases in which he had divided the gustatory nerve to relieve the pain and distress caused by cancer of the tongue. In all of them the previously existing profuse salivation was immediately stopped. In all, common sensation and the sense of taste were alike absolutely destroyed. The patients were unconscious of the tongue being pinched or scratched, or of the contact of salt, sugar, aloes, Cayenne pepper, or citric acid.

Mr. SAVORY asked Dr. Ogle what was the channel of reflex action when Cayenne pepper was put into the mouth.

Dr. OGLE replied the glosso-pharyngeal as the afferent, the small petrosal as the efferent, nerve.

Dr. ALTHAUS thanked the President and Fellows for their reception of his paper. The case recorded by Duchenne was one of partial paralysis, and only affected one side. He agreed with Dr. Anstie with regard to the parallel consequences of hyperæsthesia and anæsthesia; and also in thinking that neurosis of the fifth pair often affected the nutrition of the hair, although not in this case. Dr. Broadbent's observation had, he thought, been met by Dr. Anstie; and the objections of Dr. Ogle by Mr. Savory.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 17TH, 1868.

MR. SIMON, F.R.S., PRESIDENT, IN THE CHAIR.

SEVERAL reports by the Committee on Morbid Growths were read. The first, on Mr. Carr Jackson's secondary tumour of the lung, following a similar morbid growth of the periosteum of the humerus. Secondly, on Mr. Pick's case of sero-cystic tumour of the breast, which turned out to be an adenoid growth, complicated by a cystic formation, from the interior of which projected polypoid growths. Thirdly, on Mr. Heath's case of tumour, which was a sarcoma originating in the periosteum.

Mr. BRUCE then exhibited various Patellæ, the cartilaginous surfaces of which were opaque, or more or less roughened, and as it were eroded. These changes had been observed in patients who died of pyæmia, and had been ascribed by Professor Redfern to inflammatory action; but Mr. Bruce believed that they were the consequence of a true degeneration. They were seen with increasing frequency in persons as they advanced beyond mid-life. The first change visible to the naked eye was the production of a yellowish opaque patch, especially on the parts exposed to friction. Then the cartilage becomes split up roughly into fibres, so as to present a shaggy appearance, which can be floated out in water; this fibrillation being most marked in the lower layers. The final result was a form of erosion. These changes were not accompanied by any symptoms by which their occurrence can be recognised during life save a grating sensation. Mr. Bruce had seen the condition described in most cases in the dissecting-room. Other bones were affected besides the patella, but the latter was the selective seat of the changes, probably on account of its comparatively low vitality.

Mr. T. SMITH referred to Professor Redfern's researches, and asked for information as to the exact differences between that gentleman's observations and those of Mr. Bruce; and the latter explained that he did not agree with Dr. Redfern that the changes were inflammatory.

Mr. ADAMS thought surgeons were aware of the changes, and that they were often associated with chronic rheumatic arthritis. He did not agree with Mr. Bruce as to the compa-

ratively lower vitality of the patella because it partook of the characters of a sesamoid bone. When the patella was fractured, if the fractured ends were apposed, union took place readily, showing that the vitality of the bone was considerable.

Dr. GREEN wished to know, if any special part of the cartilage were affected, whether it was that exposed to friction (to this Mr. Bruce assented), because the changes resembled chronic inflammatory changes, as seen in the "white patches" on the pericardium and elsewhere, rather than "degeneration."

Dr. BRISTOWE exhibited a diverticulum in the pericardium.

Dr. CHURCH showed a specimen of Cancer of the Thyroid, involving the trachea and œsophagus; also a mediastinal tumour of large size.

Dr. BEIGEL related the symptoms of what appeared to be a case of Lepra Tuberculosa, and placed under the microscope specimens showing the general infiltration into the tissues of fibro-plastic material, forming nodules on the surface, and leading to thickening of the walls of the alveoli of the lungs and elsewhere. The specimen was referred to the Committee on Morbid Growths.

Mr. J. D. HILL exhibited the parts from three cases of Resection of the Knee-joint.

Dr. PAYNE presented a specimen of Ulceration of the Trachea and Bronchi, the glands and the upper part of the trachea being perfectly free from disease. The ulcer had perforated the mucous and sub-mucous coats, but the cartilages were uninjured. There was no apparent cause for the disease. The woman in whom it occurred died with symptoms of severe dyspnœa.

Mr. WYATT exhibited the parts from a case of Carcinoma of the Pylorus, together with disease of the supra-renal capsules. He did not know—for he had not had time to examine the specimen—whether the changes in the capsules were cancerous. The specimen was referred to the Committee on Morbid Growths.

Mr. WEEDEN COOKE exhibited a Tumour weighing 2¾ lb., which he had removed from the neck of a man who had suffered from the disease for twenty-seven years. The tumour was lobulated, fleshy-like above, colloid-like below. On microscopic examination, it was found to be composed of gland-like tissue above and colloid matter below. Mr. Cooke regarded it as an instance of an innocent tumour taking on a malignant character. The specimen was referred to the Committee on Morbid Growths.

The PRESIDENT here remarked that it would very much facilitate the labours of the Committee just named, and save them much trouble, if portions of specimens likely to be referred to them were placed when fresh in chromic acid solution.

Mr. HULKE exhibited some microscopic preparations illustrating the structural alterations which the optic nerves and retina undergo in connexion with intracranial diseases, and disease of the kidney, with the object of directing the attention of the members of the Society to the frequency of these complications, in the hope that no opportunity would be lost of getting post-mortem examinations, and of extending our exact knowledge of these most interesting cases. The changes observed in the optic nerve in the first class of affections are—1, congestion and œdema, marked ophthalmoscopically by swelling of the papillæ and venous turgors, with but little opacity of the tissue; and, 2, congestion and œdema, with exudation and proliferation of the neuroglia. The relation between the morbid processes in the optic papillæ and those within the cranium was sometimes direct, as where a tumour of the basis cranii, or of the membranes clothing it, or one in the brain itself, projected into the middle fossa of the skull in such a way as mechanically to interfere with the cavernous sinus, and through this to hinder the efflux of blood from the ophthalmic vein; but in other cases the relation was less immediate and more obscure, as where a tumour in the lateral mass of the cerebellum is associated with neuritis optica. Mr. Hulke had found syphilitic gummata to be a frequent cause of neuritis, and he thought scrofulous basal meningitis another common cause. The anatomical alterations observed in the retina, associated with kidney disease, are the occurrence of large, fatty, granular corpuscles, principally in the inter-granule and in the outer granule layers; the presence of large, structureless, colloid nodules in these layers; and the existence of nests of horny, translucent nodules in the spaces between the inner ends of the connective-tissue radial fibres, which were once thought to be sclerosed ganglion cells, but are now by many observers regarded as nodularly hypertrophied nerve-fibres.

Dr. MURCHISON showed a specimen of Cancerous Ulceration of the Stomach, the remarkable feature of the case being the occurrence during life of an inflammatory tumour at the epigastrium, which suppurated, and was followed by a fistula. At the post-mortem examination it was found that there was a fistulous opening between the stomach and the exterior of the abdomen.

Dr. MURCHISON's second specimen was one of Simple Ulcer of the Duodenum, not remarkable anatomically, save in the presence in the floor of the ulcer of the openings of several large arteries. The lung was tubercular, but no sign of tubercle existed until three months before death, and Dr. Murchison thought it probable that the tubercle was induced by absorption of morbid products from the duodenal ulcer.

Dr. MOXON exhibited a specimen of Cancer of the Œsophagus, with secondary (epithelial) nodules in the substance of the lung. He thought the secondary disease might have arisen by the transportation by gravitation of epithelial cancer elements from the œsophagus into the bronchi.

The PRESIDENT and Mr. CAMPBELL DE MORGAN both confirmed Dr. Moxon's statement as to the probability of the occurrence of secondary growths by general diffusion from an original centre, and pointed out that they had both adduced cases in point.

Dr. MOXON also showed the parts from a boy who had acute prostatitis and pyæmia, abscess being found in the kidneys, the wall of the heart, &c.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOV. 9TH, 1868.

DR. B. W. RICHARDSON, F.R.S., PRESIDENT, IN THE CHAIR.

Mr. W. ADAMS described a New Mode of Treating the Deformities arising from the Cicatrices of Burns, &c. It was an operation originally devised by Mr. Tamplin in the case of webfingers. The great difficulty was to obviate, after any division of the web, cicatrisation and reunion at the cleft. This was overcome by inserting a steel instrument, provided with compressing plates, so as to cause a perforating slough, which being once fully established, prevented reunion at the spot at which, under other circumstances, it almost invariably occurred. After this was accomplished, the bands were divided by the knife. Mr. Adams related a case of extreme deformity of the left leg and foot, the result of a burn, which had been treated in this manner with perfect success.

Mr. H. SMITH showed Portions of Bone removed during Primary Excision of the Elbow-joint. The violent injury to the structures which rendered an operation necessary had left the brachial vessels and the principal nerves unimpaired; therefore, Mr. Smith decided on primary excision, which he considered was novel in London hospital practice, instead of amputation.

Dr. MAUDSLEY read a paper on Aphasia, which we have published.

NOVEMBER 16TH.

Dr. SEDGWICK exhibited an Adaptation of the Mirror to the Uterine Speculum. Mr. SPENCER WATSON showed a case illustrating the Treatment of Wounds by the Antiseptic Method. The case was that of a boy who had a wounded knee-joint. Mr. Watson injected into the joint a lotion of carbolic acid, one drachm to a pint. The same gentleman also exhibited the comminuted bones and a bullet removed from a hand injured by a pistol-shot two years before. Mr. COOPER presented a case of Carcinoma, about ten by five inches, situated over the lower part of the sacrum. Mr. HENRY SMITH exhibited a case of Excision of Knee, operated upon eighteen months ago. There was bony anchylosis, a most useful limb, and the boy was in excellent health.

Mr. HUNT followed with a paper "On the Phases of Physic in the Nineteenth Century."

NOVEMBER 23RD.

Mr. FRANCIS MASON showed a child, aged five years, with Congenital Cleft Palate, on whom he had operated without chloroform. He had in this case first pared the edges of the cleft, and there was but little difficulty in finishing the operation. Three sutures were used, which were removed on the third day, the uvula being perfect.

Mr. MASON also showed a young woman, aged twenty-one, with Congenital Cleft of Soft and Hard Palate, upon whom he had four years ago performed an operation on the hard palate.

He then separated the soft tissues from the hard palate in a direction from the alveolar border. This operation failed. In January last he used "Langenbeck's Raspatory," and separated the tissues in a direction towards the aperture. This was completely successful. By this proceeding a thicker and much more vascular flap can be obtained.

Mr. H. SMITH considered the case to have established a point in practice—viz., that even in a young child chloroform can be dispensed with.

After some remarks by Mr. De Méric,

Mr. WEEDEN COOKE discussed the relative merits of closure by operation and closure by mechanical means.

Mr. NAPIER thought the time for remedying defects in the palate by mechanical means was only when surgery had failed. Much misconception existed concerning the supposed recent introduction of mechanical treatment. He himself had seen it adopted eighteen years ago.

Mr. THOMAS SMITH admired the results of Mr. Mason's cases; it is only in *acquired* cleft palate (as from lupus, &c.) that the mechanical treatment applied by surgeon-dentists is valuable. In congenital cleft palate the operation is indicated, and for the easy and successful performance of this he recommended the use of a gag which he had devised for obtaining a complete and undisturbed view of the parts.

Dr. SANSOM exhibited, for Mr. Ceely, of Aylesbury, an Apparatus for Diffusing Hot Air through the atmosphere of an apartment.

Dr. KELBURNE KING, of Hull, read a paper "On Carbolic Acid and the Antiseptic Treatment in Surgery." Modern science shows that suppuration is not a wearing process in cases of those wounds which do not heal by first intention; granulation can occur without suppuration. Access of air is the most common cause of suppuration, not on account of the air itself, but the germs which are contained in it. Carbolic acid diminishes or annihilates suppurative action. The author had employed in different cases dressings of (1) solution of carbolic acid; (2) carbolic oil, proportion one to four; (3) carbolic putty—i.e., whiting added to carbolic oil to a desired consistence. The author claimed for the treatment—1. That decomposition of discharges is prevented. 2. That it enables those parts injured beyond redemption to slough away without becoming foci for the re-formation of pus. 3. That it exercises a control over the formation of pus in the centre of wounds. 4. That it diminishes the chances of blood-poisoning. 5. That it is of signal service to the patient himself and to those surrounding him, as all fetor is absolutely prevented.

Mr. DE MÉRIC objected that the so-called principles of Lister's were unwarrantable. Admitting that excellent results had been obtained, the cases might have done as well had no such treatment been adopted.

Mr. HANCOCK believed the treatment to be most valuable. He adduced some very successful examples occurring in his own practice. He preferred all the other applications of carbolic acid to the "putty." He demurred, however, to the practice of amputation through the unsound structures.

Mr. ADAMS agreed with Mr. Hancock, but found some instances in which carbolic acid, *per se*, was too great an irritant. He found the treatment could not prevent all suppuration. Exclusion of air was a most important concurrent means.

Dr. SANSOM thought credit was justly due to M. Lemaire, who propounded the treatment in 1859. Competent observers have decidedly shown that the treatment is successful, and that it diminishes suppuration. It is proved not to act by chemical means, but there is great evidence to show that it destroys germs. Failures may be partly due to the neutralisation of the effects of the acid by fatty matters (as advanced by Lemaire), or to the influence of gaseous compounds of decomposition, against which it cannot contend.

NOVEMBER 30TH.

Mr. C. J. FOX introduced the subject of the action of nitrous-oxide gas in dentistry, but the discussion was adjourned.

The paper of the evening was that by Mr. HAVILAND, on the Geographical Distribution of Cancer, a reference to which will be found elsewhere.

WINDSOR ROYAL INFIRMARY. — During the year 1867 the number of in-patients admitted into the Windsor Royal Infirmary was 152, the out-patients 2936. We learn this from the Report for 1867 which has reached us. Mr. Holderness, one of the visiting surgeons, has resigned, and the vacancy has been filled by the appointment of Dr. Turrell.

Reviews and Notices of Books.

A Handbook of Uterine Therapeutics, and of Diseases of Women. By EDWARD JOHN TILT, M.D., &c. Third Edition; pp. 423. London: John Churchill and Sons.

WE have here an old and trusted friend under a new aspect. Dr. Tilt's Handbook supplied a want that was almost universally felt by the profession, and hence it obtained, at once, complete appreciation and a ready sale. In this new and greatly enlarged edition the good features of its predecessors are retained, with such additions as have been suggested by experience or by the medical fashions of the day; and yet the volume preserves all the terseness and convenience that its title is intended to suggest.

The leading idea of the treatise, as a whole, may be described as the desire to present to the reader the medical, as distinguished from the surgical (may we not even say the mechanical) aspect of uterine therapeutics. About the questions hence arising there is much to be said on both sides; and the difficulty of forming an impartial judgment is materially increased by the fact that the known or reputed opinions of a practitioner of eminence have a great influence in determining the character of his experience. The patient who has undergone surgical procedures without relief turns very naturally towards one whose leanings are adverse to them; and the patient who is no better for rest and medication seeks further help in a quarter where the resources of surgery are early called into play. Hence each man sees much to confirm, and comparatively little to correct, a bias that he may have received from some single case or at some early period of his career; and in this way divergences of opinion are produced with regard to the value of means about which there ought to be entire concord and parallelism. But, on the whole, we think it is the medical view of the case which at present chiefly needs to be enforced; and the thanks of the profession are greatly due to Dr. Tilt for having enforced it with remarkable moderation and ability. The mechanical explanation of a morbid condition speaks for itself, and assumes a simplicity that is as captivating as it may sometimes be misleading. To use remedies with patience and skill, and with an intelligent belief in their powers for good, requires far higher faculties than any that are needed for the insertion of a pessary or for the division of the cervix uteri. To such patient and skilful use Dr. Tilt's pages are eminently calculated to lead; and the re-issue of his work at the present conjuncture cannot fail to be of benefit to the profession. A treatise that is in its third edition does not require to be quoted in support of the favourable judgment of reviewers; and it would be difficult, within the limits of our space, to give sufficient extracts to afford, to the few who will not see the volume, any fair notion of its merits. But we cannot refrain from calling attention to the section upon the use of sedatives, as being especially worthy of careful perusal, and full of the best characteristics of the author's mind.

Dr. Tilt's conservative tendencies have become more marked in the successive editions of this work. We had, it will be remembered, occasion to commend the stand that he and Dr. Meadows made at the Obstetrical Society against the growing tendency to exaggerate the frequency and the danger of uterine displacements.

Essays on Physiological Subjects. By GILBERT W. CHILD, M.D., F.L.S., F.C.S., of Exeter College, Oxford. London: Longmans and Co. 1868.

WE are glad to see Dr. Child's essays reappear in a collected form. They include the following subjects:—1. A Review of Mr. Darwin's Work on the Fertilisation of Orchids. 2. On Marriages of Consanguinity. 3. On Recent Researches on the Production of the Lowest Forms of Animal and Vegetable Life. 4. Experimental Researches on the Production of Or-

ganisms in closed Vessels. In the first essay Dr. Child supports and corroborates Mr. Darwin's investigations in regard to the mode of fertilisation of orchids, but he adduces some important evidence in opposition to that author's views to the effect that "Nature abhors perpetual self-fertilisation." The second essay, which is an extremely interesting and important one, is in some sort a continuation of the same train of reasoning, the author being a decided opponent of the view that marriages of consanguinity are necessarily followed by deterioration or degeneracy of offspring. The third essay contains a clear summary of the well-known dispute between the panspermists and the heterogenists, which a year or two ago excited so much attention in France, and with the latter of whom Dr. Child appears disposed, as we gather from his last essay, to rank himself. We have much pleasure in recommending this volume to our readers.

The Laryngoscope in Diseases of the Throat; with a Chapter on Rhinoscopy. A Manual for the Student and Practitioner. By Sir GEORGE DUNCAN GIBB, Bart., M.D., LL.D., Assistant-Physician and Lecturer on Forensic Medicine, Westminster Hospital. Third Edition. pp. 158. London: Churchill and Sons. 1868.

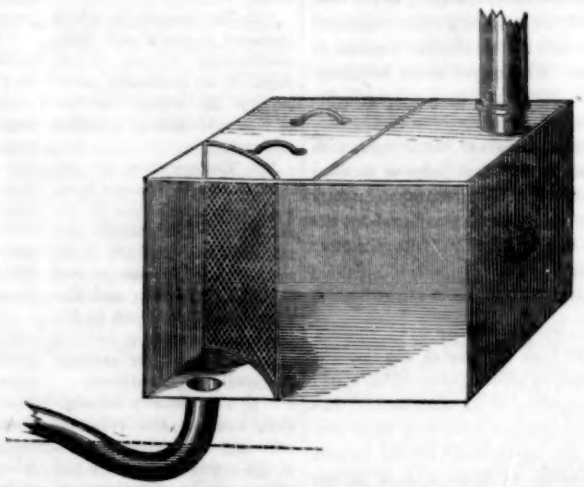
IN announcing the third edition of Sir Duncan Gibb's well-known work on the Laryngoscope, we cannot do better than quote a portion of the author's preface to it, which states that "the time has been so short since the publication of the second edition—a little over a year—that it has afforded scarcely any opportunity for the introduction of additional matter into the present edition bearing upon the subject of which the volume professes to treat; it will be found, nevertheless, in no way behind its predecessor." Whilst endorsing the latter statement, and believing that the student and practitioner could not have a safer or better guide in the use of the laryngoscope than the present volume, we would venture to suggest to the author the omission of certain notes reflecting upon other workers at the same subject.

Physiological Remarks upon the Causes of Consumption. By VALENTINE DUKE, M.D., F.R.C.S.I., L.K.Q.C.P.I. London: Longman & Co. Dublin: Fannin & Co. 1867.

THIS is an excellent and valuable statement of the tubercular cachexia, and of the sanitary principles upon which the approach of consumption is to be arrested, and its development prevented. Phthisis is a disease of no special state, or country, or climate; and it is only by sound sanitary principles, acted on by individuals and communities, that this great destroyer is to be successfully resisted.

A NEW CATCH-PIT.

A NEW catch-pit and interceptor has been invented by Mr. Chesshire, of Newhall-street, Birmingham. It consists of an iron box, or tank, one corner of which is screened off by a coarse perforated iron sieve, which permits the aqueous fluid to pass directly into the drain, and retains its more solid matters. The bottom of the tank is covered with coarse cinders, with a layer of ashes above them, and it is then placed beneath a watercloset, or dry seat, as the case may be. It is stated that only one-seventeenth, or 6 per cent., of the solid matter passes through the interceptor, and that the contents retained contain sixty times more nitrogen, and 300 times more phosphoric acid, than the outflow fluid. The tank requires removal from time to time for the purpose of cleansing, the period varying according to the use which has been made of it. The mode of fixing is simple, and the contents, when mixed with a sufficient quantity of earth, form a valuable manure. Mr. Chesshire states that it is the united presence of water and fæcal matter which alone gives rise to smell, and that the immediate separation in the interceptor purifies the drains and preserves the solid matters from unwholesome decomposition. We are glad to hear that the interceptor is to be tried at Netley, under the supervision of Dr. Parkes, and we hope to report upon its use ourselves. Meanwhile we can readily conceive that it is an apparatus well suited for particular places, as indeed is fairly proved by the testimonials Mr. Chesshire has received. The woodcut will readily explain the apparatus.



THE MEDICAL CLUB.

To the Editor of THE LANCET.

SIR,—I hope you will allow me, through the medium of your columns, to state, in reply to numerous correspondents, that it was decided at the general meeting *not* to increase the subscriptions of the original members.

The formation of the guarantee fund will prevent the necessity of any increase of subscription; and if every member could, during the ensuing year, introduce one new subscriber, the guarantors would not require to be called upon for any portion of the sums they have kindly promised to subscribe in addition to their annual subscriptions, should such be found necessary.

I am, Sir, yours obediently,

December 1st, 1868. LORY MARSH, Hon. Sec.

SMALL-POX continues fatally prevalent in Sheffield, resulting in 12 deaths last week, which makes altogether 102 deaths from this cause in the last nine weeks. Out of a population thirteen times greater, the fatal cases of small-pox in London have not amounted to half those recorded in Sheffield during an equal period of nine weeks.

THE LANCET.

LONDON: SATURDAY, DECEMBER 5, 1868.

As we anticipated, the Executive Committee of the Medical Council, at its meeting on Wednesday last, had under consideration the clauses of the Pharmacy Act which affect registered medical practitioners. It appears that, in Scotland particularly, the injurious action of the change so insidiously made in Clause 16 of that Act, whereby the words "duly qualified apothecary" were substituted for "duly qualified medical practitioners," has been felt, as reclamations have been made from Scottish practitioners, proving serious practical grievances to which they have in consequence been subjected. The Committee, we think, did perfectly right in resolving, before taking steps to secure a legislative rectification of the obnoxious clause of the Pharmacy Act, to obtain the opinion of counsel on the matter. A good legal opinion will simplify matters, and be a guide as to the kind of legislation required. It is right that the Medical Council should show in this instance, as they have shown in many others, that they are alive to the interests of registered medical practitioners, and prepared at all times to defend their rights, from whatever quarter they may be attacked. We are glad to know that the Executive Committee have now made arrangements whereby the Medical Register shall henceforth be published earlier in the year than formerly—if possible before the end of January in each year; and that they have issued instructions, according to the resolution of the Medical Council, for supplying every registered medical practitioner with a copy of the Medical Register in which his name first appears. With regard to the bodies examining in general education recognised by the Council, the Executive Committee have taken steps for ascertaining how far they conform to the recommendations of the Council, with the view of enabling the Medical Council to judge as to what bodies should continue on the list. Various other matters not of general interest seem to have been considered by the Executive Committee, who, it is expected, will have to meet again about the end of January, 1869.

THE issue of a Royal Commission to inquire into the nature and operation of the sanitary laws in force in this country, marks an epoch in the history of preventive medicine which claims at our hands a full recognition of its importance. The most casual observer of public opinion must long since have discovered that eventually the unravelment of the tangled skein of sanitary legislation would be taken in hand in real earnest; so uniform have been the teachings of the press, medical and general, that a vast mass of disease which year after year has swept thousands to an untimely grave would find no place amongst our population, if the conflict of authorities and the want of plenary powers so conspicuous in all our attempts to grapple with special causes of fatality were put an end to. And now that the long-looked for step has been taken, and the machinery for a full and exhaustive inquiry into the whole subject of public health has been set in motion, it becomes our duty to watch attentively the progress of events, to contemplate the issues involved, and to do what in us lies towards bringing about a result conducive alike to the interests of the profession and to the public weal.

It will be in the recollection of our readers that in May last a large and influential deputation from the British Medical and Social Science Associations waited upon the Lord President of the Council and the Home Secretary to present a Memorial praying for the issue of a Royal Commission to inquire into various matters held by the memorialists to stand in urgent need of investigation. The Commission just issued is the answer of the Government to the prayer of that Memorial, although a comparison of the text of the Commission (so far as it is correctly given in the *Gazette*) with the specific requirements of the Memorial seems to show that only in a restricted sense have the views of the memorialists been met. We place here in juxtaposition the request and the concession:—

The Memorial asked for—

"A thorough, impartial, and comprehensive inquiry, by a Royal Commission having power to visit, or to send subcommissioners to visit, the large towns and other districts of the country, to obtain information and evidence, and to report on—

"1. The manner in which the cases and causes of sickness and of death are and should be inquired into and recorded in the United Kingdom.

"2. The manner in which coroners' inquests and other medico-legal inquiries are and ought to be conducted, particularly in regard to the methods of taking scientific evidence.

"3. The operation and administration of sanitary laws, with special reference to the manner in which scientific and medical advice and aid in the prevention of disease are and should be afforded; and also with special reference to the extent of the areas or districts most convenient for sanitary and medico-legal purposes.

"4. The sanitary organisation, existing and required, including a complete account of the several authorities and officers. The education, selection, qualification, duties, powers, tenure, and remuneration of the said officers to be specially reported on.

"5. The revision and consolidation of the sanitary laws, having special reference to the increase of the efficiency of their administration, both central and local."

The Commission grants an inquiry into—

"1st. The operation of the sanitary laws for towns, villages, and rural districts in Great Britain and Ireland, so far as these laws apply to sewerage, drainage, water-supply, removal of refuse, prevention of overcrowding, and other conditions conducive to the public health.

"2nd. The operation of the laws for preventing the introduction and spreading of contagious and infectious diseases, and of epidemics injurious to the public health.

"3rd. The local administration of the aforesaid sanitary laws—namely, the constitution and action of the respective governing or managing bodies, and the formation of the districts in which these laws are carried into execution.

"4th. The operation of that part of the registration system which relates to certificates of causes of death.

"The Commissioners are empowered to suggest improvements in all or any of these matters, and in particular to distinguish any laws that should be obligatory in their operation from those which should be permissive only, and any laws which should be generally applied from those which should be confined to populous places or particular localities."

It will be observed that there are two important subjects which had place in the Memorial, but are omitted in the Commission—namely, the registration or notification of cases and causes of sickness, and the mode of taking medico-legal evidence. Of the last of these we can only say we have small regret that the Government has not thought fit to open up a question as to which we have more than once expressed our deliberate conviction, that the plan proposed by Dr. RUMSEY and others would be in many ways objectionable to the profession, while the advantage accruing to the public would be inconsiderable, if any. But as regards the registration of sickness, we are clear upon the point that it is more than desirable to have such a record of disease as will give a clue to the relative prevalence and fatality of different disorders over large areas of observation, in order that the discrepant results of exceptional circumstances may be neutralised. The isolated attempts of individuals in this field of medical statistics, however useful as indications of probabilities in disease, cannot of course be compared in value with such results as would be obtained on the large scale of a national registration. We trust therefore that the terms of the Commission will be found sufficiently elastic to admit of the consideration of a plan for the provision of a most useful, indeed highly essential, adjunct to medical and sanitary science. We attach also very great importance to a revision and properly defined settlement of the areas to be adopted for sanitary and statistical purposes; to this matter we may have occasion to refer at another time, but will just say here that we hope the Commission will be able to suggest such a modification of the arrangement at present existing as will relieve students of mortuary statistics from the difficulties in which they now perpetually find themselves by reason of the variable limits employed. And as to the prevention or limitation of epidemics, instances crowd upon our notice almost daily of the pressing need for bringing the powers of the law into play for the protection of the public. Whether the time is ripe for such thorough measures as theoretically ought to be adopted may perhaps be questioned, seeing the remarkable apathy with which the intelligence of epidemic outbreaks is most commonly received. The case of North Shields is strictly in point: there a thousand cases of serious disease have lately occurred, resulting in some sixty deaths; but the circumstance has not attracted half as much notice as the announcement of an ordinary railway accident. People want a little more education yet to enable them to appreciate the fact that disease arising from insanitary conditions is not only a source of danger to life, but that in every other respect also it is an extravagantly dear commodity.

We shall no doubt have occasion from time to time during the progress of the inquiry to suggest points, and to discuss others which may be suggested, germane to the immediate objects of the Commission. At present it would be premature to go beyond what we have already touched upon generally, and not as matters of detail. The Commission, as we said last week, appears to us on the whole to have been fairly selected; and it certainly includes quite an average working proportion of men practically acquainted with the subjects they will have to consider. So far as the medical element is concerned, we may add to our last week's analysis that the Commission embraces representatives of English, Scotch, Irish, metropolitan, and provincial medical interests.

That the appointment of the Commission is in great measure the result of a movement set on foot by the persistent and indefatigable efforts of Dr. RUMSEY, who, by speech and writing, has for years been urging the adoption of an elaborate and complicated scheme of State Medicine, it would be affectation to doubt. And that some of his suggestions will be ultimately adopted by the Commission is more than probable; while others, we assume, will be left for the consideration of an age more tolerant of theoretical fancies than the present. It may, perhaps, be as well for us to say that, while we have conscientiously opposed Dr. RUMSEY as to those parts of his scheme which we have deemed, and still hold to be, injurious to the public and to the general body of medical practitioners, we are most anxious for the prosecution of the inquiries which have been actually assigned to the Commission now appointed.

IN a recent number of *La France Médicale* a paper appears by M. POZNANSKI under the heading of Dynamical Pathology, in which he endeavours to furnish a rational explanation of some of the principal facts exhibited in the origin and spread of miasmata. He notices that epidemics of various kinds are, as a general rule, preceded by floods, followed by intense heat. As the waters drain off extensive decomposition takes place in the organic matter, the particles of which are carried up with the watery vapour which arises from the warm and moist soil. The air thus charged with organic matter constitutes a miasm, and according to its temperature will be the rapidity of its ascent: if its heat be great, it will rise nearly perpendicularly; if moderate, more slowly. In the former case the quickness of its rise will lead to an equally rapid fall of temperature, and as a consequence the aqueous vapour with which it is charged will fall as rain; in the latter case the condensation of the watery vapour will be less obvious and more partial. From the moment, however, that the aqueous particles are precipitated, the air charged with miasma, no longer rendered specifically lighter by their support, has a tendency to fall, and as the difference between the air containing and that destitute of watery vapour is not very great, its descent will not be vertical, but will pursue a curve, or more or less diagonal direction, and this curve will be longer or shorter according to the difference of temperature. If the primary heat be intense the ascent of the miasmatic air will be rapid, its cooling sudden, the condensation of aqueous vapour more complete, and the fall of the miasm more vertical, so that it may affect the tract of country to which it owes its origin. If, on the contrary, the primary temperature be moderate, the ascent takes place more slowly, the aqueous condensation is less complete, and the descent more slow; so that it may affect distant regions and elevated spots, the tracts of country intermediate to the place of its production and of its descent enjoying a complete immunity. Thus we may distinguish two kinds of epidemics—indigenous epidemics or endemics, which affect the districts corresponding to, or immediately adjoining, the place of origin of the miasm; and epidemics less intense and prolonged, which are brought from some distant point, and to which the term "peregrinating epidemics" may be applied. But independently of this mode of origin, epidemics may, and do, propagate themselves horizontally; for it is easy to conceive that the miasmatic air from which the water has been precipitated, redescending to the surface of the earth, tends to occupy th

bottoms of valleys and depressions of the surface generally, whence, influenced by local currents, it may progress from any one place to another in its immediate vicinity. This double mode of migration being recognised, many points in the history of epidemics become intelligible. We can understand, for instance, the reason that epidemics propagate themselves in the direction of valleys, along the course of rivers and of the great highways of commerce which almost necessarily avoid high elevations, and also why they appear in marshy districts, in sea-ports, and in towns offering topographical conditions favourable to infection. We can understand the intensity of epidemics occurring in such places, and the tenacity with which they cling to them, when compared with dry and lofty regions. It enables us to explain, moreover, the possibility of the primary development of miasmatic epidemics in districts greatly elevated above the sea-line, so long as they do not exceed the limits that may be attained by air charged with miasmatic and watery particles; also the various modes in which epidemics progress—sometimes by ascending, sometimes by descending declivities; sometimes advancing, sometimes retrogressing. It furnishes us with an explanation of the greater noxiousness of the air after nightfall; for the earth, retaining its heat, still continues to give off exhalations, which, ascending, are rapidly condensed by the nocturnal cold peculiar to hot countries and marshy soils, and fall almost vertically, without having undergone any dilution, and are hence particularly pernicious. An explanation is thus also afforded of the absence of epidemics in the open seas, far from isles and continents, since the miasmata only reach such places after long migration, causing them to lose their concentration. Hence also the relative immunity of miasmatic epidemics in countries distant from porous soils; the constant influence of drainage in improving the health of districts, by occasioning the desiccation of the earth; the influence of prolonged cold in checking the progress of epidemics, and, in fact, effecting their entire abolition, until by the concurrence of favouring circumstances the contingent of miasmatic air is renewed, which has heretofore been explained by supposing that a hibernation of an epidemic occurs. Again, it accounts for the propagation of certain epidemics occurring sometimes in a direction contrary to that of the prevailing winds, the force of which, being contrary to the primitive direction of the miasma, may cut the curve of its descent, or may divide or shorten it, or, if the current be strong enough, may so dilute it as to render it harmless. The influence of rain may be of a similar nature; if moderate, it may increase the severity of an epidemic by augmenting the evaporation and the amount of miasmatic emanations, whilst an abundant rain may altogether remove it. It explains the constant association of epidemics with seasonal changes characterised by abundant evaporation. It explains the intensity and perniciousness of endemic affections as compared with peregrinating epidemics, or those coming from a distance; though it must be remembered that the deleterious influence is always felt by a particular population in proportion as it is new, and has not previously affected them. On this account peregrinating epidemics are usually very noxious, especially at their commencement, before any organic accommodation to the new conditions has had time to take place. Hence, also, it is not difficult to comprehend why epidemics diminish in intensity in proportion as they gain in extent; and, lastly, we are enabled to furnish an explanation of the circumstance that some countries enjoy perfect immunity from certain miasmatic epidemics, since such countries are subject to certain climateric conditions, or are distant from the countries where endemic diseases originate. The views of Dr. POZNANSKI appear to us to be founded on sound principles, and we have given them as nearly entire as the limits of our space would permit.

THE Association of Metropolitan Medical Teachers has spent another evening in the discussion of the report of its Council, and has again adjourned, and will not improbably do so more than once before its labours are concluded. Perhaps it may save the time which to some of the members must be valuable, if we venture to point out that it is perfectly hopeless to expect that unanimity of opinion can be brought about so long as each class of teachers stands out for its own department as requiring more time and attention than any other.

On Monday night the anatomists, led by Dr. SALTER, carried their point, which we believe has justice on its side, that anatomy should form a subject of study in two years. Professor WILLIAMSON made a good fight on behalf of his specialty, chemistry, which he believes would, if properly studied, fully occupy a student's first year in its entirety. A lecturer on botany having ventured to exalt his favourite subject, was ruthlessly extinguished by Dr. DICKINSON, who proposed to eliminate the study of plants from the medical curriculum altogether; whilst it was seriously maintained by one teacher that the only true commencement of human anatomy was a thorough acquaintance with that of the lower animals.

Now these various views may or may not be correct; and supposing a young man with plenty of time, money, and inclination, we have no doubt he might become an adept in all the minutiæ of chemistry, botany, and comparative anatomy before he turns his attention at all to his strictly medical studies. It must be borne in mind, however, that the means and time at the disposal of most medical students are very decidedly limited, except in rare instances; and that young men are sent to the metropolis *not* to become perfect chemists, botanists, or comparative anatomists—however desirable that might be—but to become practitioners of medicine and surgery, and to acquire that knowledge of the human frame and its functions which shall enable them to cope with disease. In the three or four years of their studentship they are to become so familiar with all the ordinary and some of the extraordinary diseases and accidents to which the flesh is heir, as to be able to act with judgment when similar occurrences prevent themselves. Is four years too much, we ask, for this practical acquaintance with disease, and how is it possible for the student to become acquainted with all the modern methods of diagnosis and the various therapeutical means at his disposal, if at least two years are to be taken up by studies which have but little bearing upon the object in view? Of course, we shall be taken to task, and told that it is necessary the student should have a scientific basis. By all means; but let us beware of making the scientific foundation usurp the place of the superstructure, lest we send forth a set of half-fledged *savants* instead of well-informed *practitioners* to take charge of the health and lives of our countrymen.

Medical Annotations.

"Ne quid nimis."

RECENT CANDIDATES AT THE UNIVERSITY OF LONDON.

THERE are one or two points which deserve special notice at our hands in reference to the several pass and honours lists which give the results of the recent examinations for the higher medical degrees in the University of London. They furnish remarkable confirmation of the truth of the statement which we made last week as regards the eminently satisfactory character of these examinations. In the first place, we may say that the rejections were of such a nature and in such number as to prove that the kind and degree of knowledge demanded from the candidate had not suffered any change; and this will be all the more apparent when we mention that the rejections in the case of the candidates for the degree of M.D., who are generally supposed to enjoy an easy victory after having passed successfully through the ordeal of the second M.B., was comparatively large. But this by the way. It is to the special proficiency of the candidates generally that we wish to bear testimony. All those who presented themselves for the degree of Bachelor of Surgery passed on the first examination. The three candidates for the Mastership in Surgery all passed; and whilst the gold medal was awarded to one of these gentlemen, the other two were starred as worthy of a medal. In the honours examination of the second M.B., in Medicine, Midwifery, and Forensic Medicine, the candidates were so nearly equal in excellence that it was a very difficult matter indeed for the examiners to determine their comparative standing; and so unusually proficient were they that, in addition to the candidates who actually obtained the three scholarships in these subjects, three others were specially starred in Medicine, three in Midwifery, and two in Forensic Medicine, as worthy of scholarships. It is unnecessary to say how highly creditable this result is to the competitors, or how absurd is any statement which, under the circumstances given, implies that the character of the papers set is open to question on the score of unsuitableness. One thing is certain, that the system of examination pursued at the University of London is one that draws a pretty broad line of demarcation between real and suppositious knowledge. The large rejection on the one hand, and the constant placing together of the known best men of different schools on a level, affords very good evidence of this.

THE CLINICAL SOCIETY.

AT the last meeting of this Society, the subject of Fibroid Phthisis was again brought under review, and a discussion took place, in which Dr. Pollock, Dr. C. J. B. Williams, Dr. Powell, and Dr. Greenhow took part. Nothing very material was added to the arguments upon the topic which had already been brought before the Society on more than one occasion, and to which we have at different times referred. Opportunity was thus afforded, however, for some good speeches. Dr. Pollock notably relieved what would otherwise have been rather a dull evening, by a speech which was really a remarkable example of oratory. But if we succeeded in gathering any fair idea of the feeling dominant amongst the members, it was that quite enough had been said for the present upon the subject of fibroid phthisis, and that the Society might very usefully turn its attention to other matters not less interesting, but more immediately practical. Mr. Bruce's interesting paper upon "Tracheotomy for Acute Laryngitis" called forth a slight discussion, involving remarks which it occurred to us we had heard more than once before.

It is, there can be no doubt, very difficult for the Council to interpose in the matter of papers proposed for reading, which naturally appear to the readers as peculiarly suitable; but there can be little doubt that the members themselves look to the Clinical Society as a field for the discussion, especially, of the treatment of disease, and it must be confessed that some of the contributions hitherto presented would tend to the idea that their authors had not sufficiently kept this object in view. We would venture, in the interests of the Society, to urge that the strictest possible regard should be paid to this point.

THE SCIENTIFIC INVESTIGATION OF CHOLERA.

IT will be remembered that the authorities at the War Office, on the suggestion of the Senate of the Army Medical School, consented to some medical officers being sent to the Continent for the purpose of specially studying the different views which have been recently propounded as to the fungoid origin of cholera, and the connexion of that disease with certain conditions of soil and moisture as set forth by Professor Pettenkofer. Drs. Cunningham and Lewis were selected for this purpose; and they have had all the advantage that a special training could secure.

After visiting Halle, Jena, and Munich—where they received personal instructions from Profs. De Bary, Hallier, and Pettenkofer,—these gentlemen have returned from Germany to this country, and are awaiting orders for immediate embarkation to India. The Government of India and the Secretary of State for War will, we believe, consent to place these officers at the disposal of the local Government, with instructions as to the object of their inquiry; and the heads of the British and India medical services will likewise be requested to aid them in its prosecution. The German professors were most courteous, and spared no pains in order to instruct these officers as to their views and the best practical methods of conducting the various scientific observations connected therewith. Prof. Pettenkofer, we are informed, in a communication to the Medical Senate, expresses himself very warmly on the honour which this undertaking reflects upon the name of England; and, whatever the result may be, we congratulate the War Minister and the army medical authorities on the liberality and enterprise which have characterised their action in an undertaking so truly benevolent as this.

THE CANCER-FIELDS OF ENGLAND.

AN elaborate series of statistical facts relative to the geographical distribution of cancer in England was brought under the notice of the Medical Society of London on Monday evening by Mr. Haviland. The value of these facts, and the conclusions deducible from them, we do not pretend now to determine; we merely record the general conclusions arrived at. Mr. Haviland first drew attention to a map which he had prepared from the returns of the Registrar-General, showing the various localities or fields in which cancer was most prevalent, as shown by the mortality, in England. On reviewing these cancer-fields, the author explained that they all had certain peculiar characters of site and soil, which might be summed up as follows: 1st. They were districts sheltered from the prevailing sea winds by the heights which gave rise to the river system. 2nd. They lay along the banks of fully formed rivers, in low vales or deep valleys; and their sites, geologically considered, invariably belonged to the Tertiary and more recent formations, amongst which the London clay held a prominent place, as seen in the Thames field. The haunt of cancer seemed to be on low-lying ground through which our large rivers run in their course to the sea; and those districts were specially favourable to the development of cancer that were traversed by rivers which during wet seasons overflowed their banks and flooded the neighbouring country. The obvious practical advantage the author believed to be derived from this investigation was the knowledge that accrued to the medical man of the habitat of cancer. With such know-

ledge he would be able to advise his patient what places to avoid and where to reside, if apprehensive of becoming a victim to the disease—namely, low-lying alluvial districts in the neighbourhood of great rivers, in the one case, and, in the other, high, dry, and bracing districts, where the older geological formations predominate, where pure air has thorough access, and where rivers are in their infancy. Mr. Haviland then showed how distinct the geographical distribution of cancer was from that of phthisis, the more sheltered and warm valleys being those in which the least mortality from phthisis takes place.

A MEDICAL REVOLUTION IN SPAIN.

THE Spaniards are determined not to do things by halves. Political changes have been followed by a wholesale revolution in scientific and medical teaching. The Government has proclaimed complete liberty of teaching in all the various branches of knowledge. Any Spaniard, of whatever age, sex, or position, may now open a school or college for instruction in the higher branches of letters and sciences; and, what is more, in all the establishments thus permitted and sanctioned by Government the professors must be named by *concours*, or public competition. In regard to the teaching of Medicine and Pharmacy the reform has been almost as sweeping; and M. Zorrilla, who is the member of the Provisional Government entrusted with the Department of the Fomento, has had it all his own way. Titles have been abrogated, the curriculum has been altered, &c. One of the most curious points in these changes has been the abolishment of Latin as a necessary preliminary attainment. El Señor Zorrilla considers that an acquaintance with Latin is necessary only for making "useless rhetoricians, plodding Latinists, and sterile argumentators." Indeed, according to the honourable minister—we do not say the "learned gentleman,"—Latin is an article of luxury, good only for those addicted to the study of antiquity.

MIDWIFERY AT WORCESTER.

THE terms offered by the Worcester Board of Guardians for attendance on parish midwifery—namely, 15*s.* per case—have been accepted by Mr. Jeffery and Dr. Woodward. Mr. Hilary Hill is willing to attend ordinary cases on these terms, but could not consent to deviate from his contract, which allows him a larger sum in difficult cases. We hope that there will be no attempt to revert to the old system, and that the guardians will be able to arrange with Mr. Hill. It cannot be doubted that 15*s.* is an inadequate remuneration for long and tedious labours, and for those involving important operations. Extra payment has usually been made in such cases, and we think it would be extremely undesirable to include them in the ordinary contract.

PROTECTION FOR THE CHARITABLE.

IT is always an invidious task to appear to interfere between the outpourings of the charitable and the unfortunate persons whose hard lot it is to stand in need of assistance; but we have a growing conviction that something like a "Charity Audit Commission"—the idea of which was started by *The Times* some time since—has become necessary for the protection of that large-hearted portion of the public which is ever ready to succour affliction. A recent controversy in the *Athenæum* points, we think, to one amongst numerous examples of the necessity of such an institution. The "Society for promoting Cheap Literature for the Blind," not long since established at Worcester, is seeking funds—and £20,000 is thought necessary—for printing books in embossed characters for the blind. It proposes to use what is called the upper and lower case Roman system—large letters, that is to say, of the kind in which this journal is printed—for this purpose. It would appear, however, that there are the gravest doubts as to the applicability of this system. The type has been abandoned at York, where it was introduced by its inventor, as well as in France, Belgium, and to a great extent in America. It would be deplorable if the funds of the charitable subscribed for so worthy an object as the instruction and comfort of the blind should after all be wasted upon a system which they could not generally employ. In the present instance, happily, there can, we think, be no doubt of the *bona fides* of all persons concerned. It is a question indeed of judgment and expediency, not of integrity. But our experience leads us to the conviction that there are many cases where the charity of the benevolent is purposely misemployed, or recklessly wasted. Some sort of guarantee ought surely to be afforded that funds, often but ill-spared, are rightly and economically expended. Without it there is no small chance that a feeling of mistrust will tend to circumscribe the exercise of the noblest of the cardinal virtues.

MEDICAL SOCIETIES AND THE GENERAL PRESS: A BAD EXAMPLE.

IN the *Standard* of Wednesday last we find a column of small print headed, "Geographical Distribution of Cancer," and commencing with the following passage:—

"At a meeting of the Medical Society on Monday—Dr. Richardson, F.R.S., president, in the chair—an important paper was brought forward by Dr. Haviland illustrative of one of the fine maps of the geographical distribution of diseases which that gentleman with great labour and pains is preparing from the returns of the Registrar-General."

Then follows an abstract of the paper.

We feel that we have only to call the attention of the officers of the Medical Society to this startling departure from common usage, in order to insure that nothing of the kind shall be permitted for the future. It would be difficult to exaggerate the mischief that might be done by the publication, in general newspapers, of the matters brought before the medical societies; and this mischief would be of two principal kinds. In the first place, all manner of erroneous notions and groundless alarms might be spread abroad among the public; and, in the next place, opportunities would be given for various kinds of puffing and of intra-professional quackery. On this latter ground, it cannot be tolerated that the members of Societies, who contribute papers, should themselves judge of the fitness of their productions for the columns of the daily press. The rule should be absolute that the subjects which are fitted to engage the attention of a medical meeting are not fitted for the readers of a daily newspaper. In the present instance the only effect of this most indiscreet and improper publication will be to frighten some of the dwellers in "sheltered valleys like those of the Severn, the Wye, and the Mid-Devon rivers;" but, if the present instance were left unnoticed, the next paper thus given to the world might be intended to inform these hapless persons of the locality and the custodians of the Bethesda at which the evils incidental to their places of abode might be washed away. We regret to see the name of Dr. Richardson conspicuously heading the objectionable column to which we have referred; and, although we do not now hold him in any way responsible for what has been done, we are entitled to look to him, and to his successors in the presidential chair, for precautions that shall forbid any attempt to pursue a similar course hereafter.

ROYAL MEDICAL COLLEGE, EPSOM.

WE are glad to learn that the Council of the Epsom College are about to appoint a graduate of the University of London whose special duty will be to teach subjects required for matriculation. Our critiques on this defect in the Medical College at Epsom have therefore borne good fruit; and we doubt not that the course of instruction will, for the future, when this change is carried out, meet the requirements of the day.

THE NURSERY REFORM MOVEMENT.

THIS is indeed a wonderful age in its determination to be philanthropic. The last outgoing of the philanthropic sentiment is in favour of the children of rich people. It had its beginning in the fact, that a lady sent her experiences as to the cruelty of nurses to little children to one of our contemporaries. Various remedies have been suggested for this evil. It is an evil, though it is not one great or sore enough to survive the meeting of Parliament. There are too many other cases for much thought to be taken for the children of the rich. We have, however, a great remedy for the ills that the children of rich parents are heirs to. And if only the parents will not despise our remedy for its simplicity, we shall not hear of this evil again till we have disposed of the weightier ones that press upon all serious men's minds just now. Our suggestion is this: let mothers look after their own children a great deal more than they do. All other suggestions are mere palliatives. This is a radical and specific remedy for the evil complained of. If mothers are to retain their great reputation for having most to do in the making of good and great men, they will not have to devolve so much upon nurses. Nurses are only good as co-operators with mothers; but the recent idea is to throw the principal onus of the management of children upon nurses. Mothers must decide whether their own children or the exigencies of a fashionable society are to be their chief consideration. Of one thing we are sure, that it is impossible to get nurses to treat children as mothers used to treat them; and, if all that we are in the habit of hearing about the influence of mothers is not a delusion, the sooner we go back to it the better. The present idea is to let the mother see children twice or thrice a day; to reduce her intercourse with them to a minimum. No wonder that tired nurses are cruel sometimes. Provided the above principles be recognised, we can easily imagine that the introduction of deserving and dependent gentlewomen into this service will be most advantageous both to them and to the children. But we have no faith in any suggestions which contemplate the exemption of the mother from her principal duty of living chiefly for and with her children.

CORONER'S INQUESTS AT ST. PANCRAS WORKHOUSE.

THE St. Pancras board of guardians have passed a resolution ordering the medical officers of the workhouse to report cases of sudden death, &c., to the clerk of the guardians, and not to the coroner direct. The Chairman stated that there was an inducement to get up coroner's inquests, and obtain post-mortem examinations, in order to add to the income of the medical officers. One of the churchwardens considered that the medical profession had a trade sympathy with each other, and especially with a medical coroner. Mr. Collins said it would be an interference with the medical men, and would be resented by the medical press. Mr. Chandler also opposed the motion.

We should have supposed that the Chairman of the St. Pancras guardians, who is a justice of the peace for the county of Middlesex, would have been the last person to countenance anything like a restriction of the number of inquests to be held on persons who die in the workhouse, and we venture to think any such attempt will be received by the public with suspicion and alarm. The cases of Daly and Gibson have not yet been forgotten, and St. Pancras Workhouse has been itself too frequently the scene of scandals to permit us to feel sure that they will not recur. Even at the present moment we have but little confidence in the nursing staff. We hear that the arrangements are considered so oppressive that nurses of respectability will not submit to them, and that there are changes almost every week. At any moment we may be startled by an untoward circumstance or case of serious neglect, and it is obvious that the only safeguard is a free publicity.

The imputations cast upon the medical officers and coroner are unworthy of the gentleman who uttered them, and as improper as they were uncalled for; for who can be so good a judge as the medical officer as to the necessity for an inquest: and from the fact that he is already called upon to report sudden and suspicious deaths directly to the Poor-law Board, it is evident that he is regarded as the proper officer to afford such information as the coroner is entitled to receive. It rests with the latter whether an inquest shall be held or not. In this case at least we trust that the medical officer will be permitted to perform his duty to the public without improper interference on the part either of clerks or guardians; and whilst complying with an order intended to put restriction on his actions, we would urge him manfully to write also to the coroner direct whenever he thinks right to do so.

QUARANTINE.

FROM *The Times* of Monday last we learn that an official notification has been received at Gibraltar from her Britannic Majesty's Consul at Malaga, to the following effect:—

"I have the honour to report to your Excellency that, the Provisional Government of Madrid having decreed that all the liberal measures adopted in matters of quarantine by the Provincial Juntas shall cease to have effect, the Sanitary Direction of this port has resolved to re-establish the quarantines which were in force previously to the Revolution, and consequently all vessels arriving here from ports of the United Kingdom, Gibraltar, and Malta will henceforth be dismissed to a lazaret of observation for performance of three days' quarantine."

This absurd and unintelligible proceeding would seem to indicate that not a political revolution only, but an intellectual one also, is necessary for the complete emancipation of the Spanish authorities from the thraldom of ignorant or obstinate adherence to a practice which, as enforced by them, is at once barbarous and utterly ineffective for any scientific purpose.

INCREASED MORTALITY AT BARKING.

THE health of the sub-district of Barking, the locality of the metropolitan northern drainage outfall, appears, from some statistics published in the *Pall Mall Gazette*, to be in a very unsatisfactory condition. In the quarter ending 30th September last the registered deaths amounted to 69, the corresponding numbers for the preceding June quarter being 21, and for the March quarter 17. The *Gazette* says that the 69 deaths include no less than 32 fatal cases of fever; but it is desirable it should be understood that the greater part of these were cases of scarlatina, only some 7 or 8 being cases of typhoid or typhus fever. Whether the enormous volume of sewage concentrated in this locality and discharged *en masse* into the river is or is not the cause, the fact of so remarkable an increase in the mortality, taken in conjunction with the nature of the prevalent disease, is sufficiently important to merit special investigation.

THE PRUSSIANS AND THE LATE ABYSSINIAN CAMPAIGN.

THERE can be no doubt that the Abyssinian expedition greatly raised the military *prestige* of this country on the continent; and the Prussians, in particular, lost no time in gathering together all the information they could in regard to it. Dr. Wilhelm Roth, of the medical staff of the Prussian army, has, under the instructions of his Government, just published an excellent report on the expedition,* in which he reviews the whole medical history of the campaign. It is astonishing what an amount of information he has managed

* Der Gesundheitsdienst bei der Englischen Expedition nach Abessinien. Ein Beitrag zur Armee-Gesundheitspflege, bearbeitet von Dr. Wilhelm Roth, Königlich Preussischem Oberstabsarzt. Berlin: Ernst Siegfried Mittler und Sohn. 1868.

to include within the fifty-four pages of his pamphlet. He is evidently mainly indebted to the Director-General's department. He also draws largely, and always with acknowledgment, upon the articles which have appeared from time to time in our own columns. Some official medical and sanitary papers are condensed, but the instructions issued for the sanitary officer attached to the British forces are reprinted in full. The information contained in that document is proved to be peculiarly correct. Dr. Roth evidently entertains a very high idea of the acquirements and character of many of the army medical officers with whom he was thrown in contact during his official visit to this country.

THE ROYAL INFIRMARY OF EDINBURGH.

IN the letter of our Edinburgh correspondent last week, notice was taken of a controversy that has recently arisen in regard to the site of the proposed new Royal Infirmary of Edinburgh. The chief advocates for a change of site are Professor Syme and Dr. Andrew Wood, both of whom have written in the Edinburgh newspapers forcible letters in defence of their views. They urge chiefly that the present site is too circumscribed to accommodate the various departments which go to make up a complete hospital and a complete clinical school. They believe that they can prove that a site embracing nearly double the amount of acreage, more pleasantly situated, more airy and sunny, free from surrounding buildings, and that never can be hemmed in by future buildings, may be secured in the grounds of George Watson's Hospital. This site is not five minutes' walk from the medical schools, and may, it is believed, be acquired, and a complete hospital erected upon it, with the result of a saving of about £20,000 sterling. Without professing to decide upon this controversy at the present stage, we confess that the arguments adduced seem very cogent, and at all events demand serious attention. We understand that the managers have hitherto by a majority refused to reopen the question of site. A very grave responsibility rests upon the managers, whether we regard the pecuniary questions involved, or the far more serious sanitary considerations.

HONOUR TO A VETERAN.

THE medical practitioners of the county of Dumbarton have held a jubilee dinner in honour of Dr. Robert Buchanan, of Knoxland, Dumbarton, whose long and successful career as a practitioner in the county, extends over a period of fifty years. They have further recognised it by presenting him with an address, enclosed in a handsome silver casket, commemorative of the high estimation in which he is held by them as a body. Dr. Richard, of Dumbarton, presided at the dinner, and in a feeling speech eulogised the professional and private merits of the guest of the evening, who, in reply, after warmly acknowledging the tribute of respect which had been offered to him, adverted to the changes and improvements in the treatment of many diseases, and the general advancement of medical science since he commenced practice. Most of the medical men of the county were present at this celebration of professional good will.

BANGALORE AS A MILITARY STATION.

IN a Sanitary Report of the British Troops stationed in the Madras Presidency, Deputy Inspector-General Dr. Inglis, after stating that Secunderabad stands pre-eminent in respect of unhealthiness, furnishing, with its tributary cantonment, Trinculgherry, nearly a third of the mortality of the whole command, says that the statistical returns for Bangalore entitle it to pre-eminence as a station for European troops. While its central position (equally easy of access by railway from both of the Indian seas) makes it of importance as a military post, its fine and elevated climate affords hygienic advantages possessed by no other station on the plains or table-lands of India. The public works at Bangalore have not, however, made much progress towards completion. The new barrack buildings on the old race-course, to be occupied hereafter by the regiment of British cavalry and two batteries of artillery, and the model hospital which is to supersede the old and badly arranged buildings, are still unfinished; and no system of drainage has yet been approved for the new military works at Bangalore. The works for improving the water-supply to the troops are also incomplete, and as a consequence the erection of plunge and swimming baths is postponed.

INSANITY IN THE NAVY.

A VERY able and complete article on this subject is contributed to the Naval Medical Report for 1866 by Deputy-Inspector-General William Macleod, M.D. This officer is in charge of the Royal Naval Asylum, Great Yarmouth, to which establishment all lunatic naval officers, seamen, marines, and coast-guardsmen are sent. From the latest returns included in this Report, it appears that the average number of patients in hospital during the past year was 173, and that in the same space of time 41 new cases were admitted. Of this latter number, 3 died, 13 were discharged cured, and 25 were still in residence—5 of whom may be cured, whereas 20 are classed as incurable, and therefore as permanent residents. As all classes of men serving in or connected with the Royal Navy are admissible into this hospital, it follows, according to Dr. Macleod, that the country is compelled to keep men becoming lunatic who are not subject to a very minute examination on entering the service, such as cooks, barbers, tailors, &c., and others classed as non-continued service men. Such men are discharged from the service at once if inefficient; but, if they become lunatic, the country keeps them for life. Any patient who recovers is discharged to Haslar for further observation among sane patients, and eventually sent to his home, but is not allowed to re-enter the service. The author of the Report infers that this is a useless regulation, inasmuch as it is quite possible for the man to enlist under another name, and equally impracticable to find out his previous history. The recoveries amount to 25 per cent. of the total admissions. The Report contains an interesting sketch of the arrangement and conduct of the establishment, from which it appears that this asylum is amply provided with all the requirements of a special hospital.

LOOSE INQUESTS: FIBRINOUS CLOTS AS A CAUSE OF DEATH.

THE following kind of inquest seems to us exceedingly unsatisfactory, and the medical testimony is not more satisfactory than the inquest:—

"An inquest was held on Thursday, at The Coffee Pot, George-street, before Mr. Dewes, district coroner, on the body of Sarah Thompson, who died on the previous Tuesday. Cordelia Hicklin said she knew the deceased, who was thirty-six years of age. She was called to see her, and found her dead.—Frances Ann Thompson, sister of the deceased, said her sister went to bed about half-past six on the evening of the 23rd, and she followed about half-past eight. She did not disturb her until early in the morning. Deceased took hold of her, and told her she felt poorly; she turned round and did not disturb her for about half an hour, when she asked her to get out of bed and walk about the room with her, and she did so. Deceased walked across the room and fell against the wall; she recovered herself and came to the bed and fell across it, and died in a few minutes; she went black in the face. She did not know that she was *enceinte*, and was not aware that she was taking any kind of medicine. Nothing had been removed from the room before the doctor came.—Mr. Ruffe, sworn, said he was called to see the deceased about five o'clock on the morning of the 24th inst., and found her quite dead. He found nothing in the bedroom that would lead him to think she had been taking any kind of medicine. He had, in accordance with the coroner's precept, made a post-mortem examination of the body, in conjunction with

Mr. Buxton. He then gave a description of the various parts of the body. The deceased was seven months advanced in pregnancy. The uterus contained a female child of about seven months' gestation. The presentation was natural, and the head of the child was low down in the pelvis. The membranes had ruptured. The uterus was healthy and uninjured. The small intestines were reddened and inflamed slightly in various parts of their course. The upper part of the stomach was inflamed; there was a fibrinous clot on the left ventricle of the heart, which, no doubt, was the immediate cause of death. The coroner said it was a very painful case. The jury agreed to the following verdict:—'That the deceased died from syncope, arising from a fibrinous clot upon the left ventricle of the heart.'"

Now, it is necessary to state that a fibrinous clot in the heart is often rather evidence of a mode of dying than a cause of death. There is generally some cause for it, which is really the cause of death. In this case, with pregnancy, the rare lesion of inflammation of the upper part of the stomach and of the small intestines, it might be charitable to attribute death to the clot in the heart, but it certainly was not philosophical to do so so summarily as was done, apparently on the authority of the medical man. We comment upon this case the rather because very lately, in another case, similar importance was erroneously attached to a fibrinous clot in the heart, and that it is now more than ever necessary that medical witnesses be careful in their theories of causes of death.

THE ACTION OF NITROUS OXIDE.

THE Committee of the Odontological Society appointed to investigate the action and comparative value of protoxide of nitrogen in inducing insensibility preparatory to operations, especially in dental practice, will present its report on Monday next. The report, as far as we can learn, will be merely a preliminary one, for the simple reason that the committee have not as yet obtained, as they believe, a sufficient number of facts to enable them to come to a positive decision on all points. We forbear to anticipate the discussion which it is to be hoped will follow the reading of the report.

GOING AGAINST THE STREAM.

THE Woolwich Board of Guardians, recently constituted, contemplate building their new Union Workhouse on the highest part of Plumstead-common—the most remote part of the whole district, and the farthest from the poor of the united parishes,—enclosing for this purpose twelve acres of land; the only alleged advantage being that the land is cheap. Apart from the sanitary question and also that of convenience, have these gentlemen, charged with other responsibilities than the apparent saving of a few hundred pounds, counted the cost of destroying one of the few open spaces still reserved near to our overcrowded cities?

MELBOURNE MEDICAL POLITICS.

UP to the time of our latest despatches leaving Melbourne a lively dispute was raging as to the propriety of the Minister of Justice empowering the medical coroner, Dr. Youl, to assign the duty of making all post-mortem examinations within the hospital and within his district to two gentlemen, the Professor of Anatomy (Professor Halford) and the lecturer on Forensic Medicine (Dr. Neild). These gentlemen may, of course, have very exceptional claims and qualities fitting them for this post of privilege. But it would take very exceptional merit on their part, and very exceptional defects in the members of the profession generally in Melbourne, to justify this dissociation of pathology and medical practice. It is very doubtful whether the ends of justice could be furthered by elevating two men into a position in which they would speak oracularly, to the disparagement often of other men whose opinions might be entitled to as much weight as theirs. Such an appointment would not prevent exhibitions of difference of opinion in courts, while it might operate most injuriously on both medical men and convicted persons. It may be that there is something peculiar in the condition of the profession in colonies calling for such appointments as these, but such a condition is one to be deplored and remedied,—not treated as a permanent one. Pathology should be more thoroughly taught in school, and neither in education nor in medico-legal questions should it be dissociated from the study of disease in life.

WE have good authority for stating that the rumours which have recently been circulated in Paris in reference to the health of the Emperor of the French are not founded in fact.

A DINNER in honour of the election of the Right Hon. John Inglis, D.C.L.Oxon., and LL.D.Edin., Lord Justice-General of Scotland, to the Chancellorship of the University of Edinburgh will, we understand, take place on the 8th of January, at Edinburgh. It is expected that Professor Douglas Maclagan will take the chair.

THE Epidemiological Society has changed its place of meeting from Soho-square to the rooms of the Medical Society of London, 32A, George-street, Hanover-square. The Society has also changed its evening of meeting from the first Monday to the second Wednesday of the month. The Society will open its session on the 9th inst., when Dr. Seaton, the president, will deliver an address.

A SPECIAL general meeting of the Metropolitan Branch of the British Medical Association has been summoned to meet on Tuesday, December 8th, at 4 P.M., at 37, Soho-square, to consider the address issued by the Committee in reference to the direct representation of the profession in the Medical Council, which we recently noticed in detail.

THE deaths registered last week in London amounted to 1561, showing an advance of 54 on the previous week's return. The mortality from scarlatina has somewhat abated, only 99 fatal cases occurring last week, the fewest in number recorded in any week since the end of September.

THE Vestry of St. Pancras have passed a resolution to the effect that the future medical officer of health is to reside in the parish. This will diminish materially the number of candidates, and Dr. Green, amongst others, we understand, will not compete for the vacant post.

THE second annual meeting of the Victoria Hospital for Sick Children was held on Wednesday last, Sir Wm. Jenner, Bart., in the chair. A proposition to establish a small and special building for the reception of cases of infectious diseases, was adopted by the meeting.

PROFESSOR FRANKLAND reports that the water supplied by the Southwark and Vauxhall Company, which was "exceptionally contaminated" during August, September, and October, has now returned to its normal condition.

Dr. ALDIS writes to *The Times*, stating that, according to the opinion of counsel, the hours of work mentioned in the Workshops Regulation Act may be interpreted as including the hour and a half taken for meals, the actual working time being therefore ten hours and a half instead of twelve hours.

Mr. J. A. FROUDE, the historian, has been elected Rector of St. Andrews University, by a majority of fourteen votes over the Right Hon. Mr. Disraeli.

THE next examination for admission into the Indian Medical Service will be held at Chelsea Hospital on the 8th of February, 1869. There are vacancies for twenty assistant-surgeons.

Dr. P. W. LATHAM, F.R.C.P. Lond., Fellow of Downing College, has been appointed assistant to and deputy for the Downing Professor of Medicine at the University of Cambridge. Dr. Latham has also recently been appointed Assessor to the Regius Professor of Physic.

RICHARD C. HOYLE, Esq., L.R.C.P., of Bideford, Devon, has just received the commission of Justice of the Peace for the borough, from the Lord Chancellor. Bideford has now four medical men on its magisterial bench,—viz., Dr. W. H. Acland, Dr. J. Thompson, and Messrs. T. L. Pridham (coroner), and R. C. Hoyle.

Land and Water says that the measurings for the improvement of the river Cam are now being taken, and that dredging will be commenced shortly. H.R.H. the Prince of Wales has subscribed £50 to the fund for carrying on the operations, and we are glad to learn that enough money has been obtained to keep the work going during the winter, so that the unwholesome condition of the river may the sooner become a memory of the past.

MR. WILSON, the medical officer for the Wendover district, has applied to the Wycombe Board of Guardians for extra remuneration for additional services and medicines during the late fever epidemic in his district; but the guardians have declined to accede to the application.

OWING to the prompt and liberal response of the benevolent public to the appeals made by the general committee on behalf of the National Cottage Hospital for Consumption and Diseases of the Chest, Ventnor, Undercliff, Isle of Wight, the erection of the first pair of buildings is already far advanced. Upwards of two thousand choice and valuable shrubs for the grounds of the hospital have been generously presented by Mr. William Rogers, of Red Lodge Nursery, Southampton, Mr. Anthony Waterers, Knop Hill Nursery, Woking, and Mr. Maurice Young, Milford Nurseries, near Godalming.

DR. PAGET has been re-elected to represent the University of Cambridge in the General Medical Council, for a period of five years.

THE CHOLERA EPIDEMIC OF 1867 IN NORTHERN INDIA.

WE have received "The Report of the Sanitary Commissioner with the Government of India for 1867," and a most important and interesting document it is. The cholera epidemic which prevailed over Northern India in 1867, and formed so remarkable a feature of the year, will doubtless be in the recollection of our readers, as well as the connexion which was supposed to exist between it and the dispersion of the natives after their great congregation at Hurdwar fair. It was of vast importance, both in a scientific and practical point of view, that the history of that epidemic should be, as far as possible, accurately recorded.

Hurdwar is an inconsiderable native town in the district of Saharunpore, situated on the southern slope of the Siwalik range, at the mouth of the gorge through which the Ganges escapes from its cradle in the Himalaya to the plains of Hindustan. The river formerly consisted of three channels, but since the construction of the Ganges canal the water has been divided into two, one of which is the main stream, and on its western bank the town is situated. The locality is one held in peculiar sanctity by Hindoos. From time immemorial an annual pilgrimage to this spot has been enjoined from all parts of Hindustan for ablution in the sacred waters. All that could be done in the way of sanitary prevision was carried out at the gathering of 1867. The supply of food and water was wholesome and good, hospitals were provided, a large sanitary police was enrolled to enforce cleanliness, and patrols of this body were posted upwards from Hurdwar to Rikhikés, to maintain the purity of the river water. The extreme cleanliness of the camp, and the efficiency of the conservancy arrangements, are particularly dwelt upon. Altogether, we may say that the authorities exercised the greatest care and vigilance, and, according to all accounts, with the result of producing a manifestly superior state of sanitation to that which had been the case on any previous occasion. Considerable care appears to have been taken in order to obtain a correct calculation of the number of natives at this gathering. Owing to a belief that the Ganges is losing its sacred character, or to a presentiment of coming change in religious faith, an impression got abroad that the fair of 1867 would be the last, and the gathering was therefore of unprecedented size. The total area of the encampment extended over about twenty-two square miles, and the number actually present was supposed to be close upon three millions. We see no reason to doubt the substantial accuracy of this estimate, which was based upon a census of three parts of the camp taken by Dr. Cutcliffe. The natives arriving from all parts of India congregated in this vast camp, ready to take part in the great sacred bathing of the 12th April. On the afternoon of the 11th there was a storm, accompanied by a heavy fall of rain, which continued all that night and the day following. Up to the 12th, the great bathing day, the health of the camp, notwithstanding the enormous multitude present, seems to have been excellent. On the 13th, cholera appeared, and the number of cases began to increase; but it was not until after the 15th, when the camp was again a barren plain, that the disease assumed such magnitude as the diverging streams of pilgrims became attacked. The terrified crowd fled homewards, dying in numbers from cholera and exhaustion on the various roads.

Such were the accounts which reached this country soon afterwards. The sudden origin and rapid development of the epidemic, and the character of the meteorological phenomena preceding it, were well calculated to arrest attention; but the possibility of water-contamination does not appear to have entered into the minds of those who furnished the earlier reports of which we are now speaking. Some cause common to and operating on this cholera-infected multitude there must have been: the succession of events was far too rapid to be accounted for on the assumption that the disease spread by personal communication; and we, in common with other persons in this country, expressed a strong opinion that the rainfall of the 11th and 12th of April, flushing the Ganges, must have contaminated its waters with fæcal products. We are now enabled, we think—thanks to the very able manner in which Dr. Cunningham has followed out the facts bearing on this view,—to say that it, in all human probability, affords an explanation of the phenomena.

We will now briefly summarise the facts, so far as these appear to possess a causative connexion with the outbreak.

Dr. Kendall, in medical charge of a detachment of the 14th Bengal Cavalry, stationed below Kunkhul, states that a case of sporadic cholera occurred in a grass-cutter of his regiment on the night of the 9th April. Under treatment this man speedily recovered, and no other case occurred in the regiment at Hurdwar. Of all the hospitals and dispensaries at Hurdwar the medical returns show an absence of the disease up to the 13th April. On that day eight cases of cholera were sent to hospital. Up to the 15th there were nineteen admissions from this disease. Cholera was also present in the Terai early in 1867, and existed in Sir Jung Bahadoor's camp in January; and the disease assumed an epidemic form in the district of

Bhurtpore on the 6th April. There is, then, ample evidence that cholera might have been introduced to Hurdwar by pilgrims from some of those infected districts, considering that pilgrims flocked in by hundreds and thousands from all parts of India. We have, moreover, the direct testimony of the Superintendent of the Terai that pilgrims from his district had the disease among them, and that several died on the way. In thirteen out of fourteen fairs in which sanitation was altogether neglected, cholera was unknown. It may, says the report, be stated with perfect confidence that the epidemic of cholera at the Hurdwar fair of 1867 was not *generated* by any insanitary conditions; and that any atmospheric conditions produced the disease rests as yet on no basis of fact.

As there was no evidence to show that there were any causes at work calculated to pollute the air with cholera contagium, attention became restricted to the water — the possible contamination of the Ganges. Nearly all the latrines were situated on an earth soil, or on such an admixture of earth and sand as admitted the digging of transverse trenches 1 ft. broad and 4 ft. deep. By a map the situations of the different sections of the encampment in relation to the bathing ghât, and the arrangement of the various latrines, are shown. The soil is very porous, consisting of river sand, pebbles, and boulders. The trenches were carefully covered over with several inches of rammed earth; but they had no roofs, and were completely exposed to the weather. In such a soil, with the rain of the 11th and 12th of April, the whole ground must have been more or less impregnated with sewage, and the water of the Ganges must have become contaminated with the accumulated excreta of an immense multitude. If any cases of cholera had previously existed, and the water-supply, which it must be remembered was drawn almost exclusively from the river, thereby infected, the rapid spread of the disease might be explained.

The bathing-place of the pilgrims was a space 650 ft. long by about 30 ft. wide, shut off from the rest of the bed of the river Ganges by rails, which prevented the people from getting any further out into the river than the limits of the space which was thus enclosed. Into this long, narrow enclosure the pilgrims from all parts of the encampment crowded, as closely as possible, from early morn till sunset. Now, pilgrims at the bathing-ghât, after entering the waters, dip themselves under water three or more times, and then drink of the holy water whilst saying their prayers. The drinking of the water is never omitted; and when two or more members of a family bathe together, each from his own hand gives to the other water to drink. The quantity of water drunk by the bathers varies; but it is never less than about as much as can be taken up by the palms of the two hands held together so as to form a cup, and usually several cupsful are drunk.

We have, says Dr. Cutcliffe, proof sufficient to lead to the belief that the exciting cause—the contagium of cholera—was actually in the crowd; and we agree with him in seeing no difficulty in supposing that, in drinking the polluted water of the Ganges, the bathers imbibed that which developed the disease within them. The objections that might be urged against this hypothesis are considered, and we think fairly disposed of; and the relations of this view to other and subsequent facts are carefully entered upon. That the cholera poison was afterwards conveyed by the returning pilgrims and imported into various districts and localities previously healthy there cannot, we think, be a shadow of doubt. The accumulated evidence afforded in the Report in favour of this view is overwhelming, and those who refuse to accept the testimony of the facts will incur the gravest responsibility. Dr. Cunningham quotes from Mr. Radcliffe's able account of the epidemic of 1866 in this country, published in the Ninth Report of the Medical Officer of the Privy Council. He likewise refers to the occurrences which took place in connexion with the epidemic in the East of London, and its relation to the contamination of the river Lea, in support of the position that it remains to be discovered how small a quantity of cholera contagium is sufficient to propagate the disease.

Taking the history of the Hurdwar outbreak as a whole, we may fairly regard it as affording very strong corroboration of the water contamination theory, to which Dr. Farr appealed for an explanation of the outbreak in East London, and which he has lately done so much to elucidate in his last Report, notwithstanding the adverse and captious criticism of the *Saturday Review*.

We cannot conclude this notice without congratulating Dr. Cunningham. He has produced a singularly able Report, which cannot fail to be regarded as a very valuable addition to our knowledge.

EMPLOYMENT OF CHILDREN AND WOMEN IN AGRICULTURE.

THE First Report of the Commissioners appointed to inquire into the Employment of Children, Young Persons, and Women in Agriculture, presents a large amount of most interesting information as to the manners, customs, and resources of the agricultural population in various parts of the United Kingdom. This inquiry arose out of the disclosures recently made respecting the employment of public gangs of children in the Eastern Counties; and is directed to ascertain whether the young are extensively and injuriously employed in farm labour, and what the effect of such employment is upon their health and education.

The practice of employing young children appears to be extremely general; but the employment itself is in all cases precarious, occasional, and fluctuating. It is only when they are eleven or twelve years old that children begin to be of constant use. It would seem that the health does not generally suffer from farm labour; but a very strong opinion is expressed that young boys of ten or eleven years of age ought not to be allowed to be exposed for many hours together during the winter months. If insufficiently clothed and fed, the circulation becomes impeded and the growth checked. It has been suggested that children of that age should not be employed out of doors between November and March; and it is satisfactory to find from Mr. Fraser that such an arrangement would produce little or no inconvenience.

Respecting the labour of women there is some conflict of opinion; but the state of things in Northumberland is worthy of special notice. Mr. Henley describes the Northumbrian women as a splendid race. They vie with the men in carrying sacks of corn; and there is no work, however hard, which affects them injuriously. Nor is the field work degrading; for these women, after they become wives and mothers, are excellent housekeepers. They receive a stranger with a natural courtesy and good manners which would astonish him, and the visitor will leave the cottage with a conviction that he has been in the presence of a thoughtful, contented, and unselfish woman. But the effect upon their health is equally satisfactory. They are said to be far more healthy and tenfold less affected by female complaints than those who remain indoors. The work fits them to be good bearers of children, and the strength even of town populations is kept up by them.

Some most interesting observations are made on the effect of various kinds of food. In North Northumberland the working population live principally on porridge, crowdy (scalded oatmeal), barley, pea-flour, and bread; milk, cheese, butter, and home-fed bacon. They rarely touch butcher's meat; and they always have a hot meal in the middle of the day. In the South the diet has completely changed. "They eat a vast of meat." The butcher's cart is always on the road. Tea is substituted for milk and meal; indeed, the use of tea and coffee is excessive. In the opinion of many witnesses this change of food is deteriorating the health and physical strength of the people. Mr. Lumsden states that it now takes three men to do the work formerly done by two. The medical testimony is unanimous to the same effect, and in severe weather the result is sometimes very striking. Thus in 1864 the general rate of mortality in the Southern Division of the county was 18 per cent. higher than it was in the two preceding quarters; whilst in the Northern Division the rise in mortality was only 4 per cent.

The state of the cottages, the influence of allotments, the effect of education, are all described and discussed in the Report; and it is abundantly evident that the old laws of Queen Elizabeth were wise and just which compelled every person who built a cottage to appropriate to the use of the tenant a certain amount of land, and forbade him to take in lodgers without he had sufficient accommodation to enable him to do so without violating the laws of decency and health.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

THE first general meeting of the annual session was held on Wednesday, at Willis's Rooms, at 7.30 P.M. Dr. Richardson, F.R.S., president, occupied the chair. There was a good attendance, including many members from the provinces.

After the reading of the minutes of the last session, the following members of the Association were elected associates:—Drs. Reid, Foote, Campbell, Black, Holman, Lusk, M.P., Mackenzie, Helsham, Podmore, and Walker; Messrs. Whitehead, and Whiteman.

Professor Owen, F.R.S., Dr. Wm. Farr, F.R.S., and Mr. Froude, Lord Rector of the University, were elected honorary members of the Association.

The Treasurer's report was read, and showed a balance in favour of the Society.

The report of the Council was read by the honorary secretary. The Council warmly congratulated the Association on the fact that the Parliamentary franchise had been obtained for all the graduates, together with a seat on the Council of the University, and a voice in its government. The Association continues steadily to increase, 139 new members and associates having been elected during the year. The deaths of three honoured members were mentioned with deep regret,—Dr. Ray (of Dulwich), Dr. Fayrer (of Henley-in-Arden), and Dr. Stookes (of Liverpool). The Council called the attention of the Association to the regulation which prohibits the degree of Doctor of Medicine to a greater number of non-resident graduates than ten a year.

On the motion of Dr. Pike, seconded by Dr. Watson, the report of the Council was unanimously received and adopted.

Dr. CRISP moved the following resolution:—"That the Council be instructed to take such steps as they may deem expedient to obtain the repeal of the regulation limiting the number of non-resident graduates to ten annually."

Dr. DYSDALE seconded the motion.

A debate followed, in which Dr. Davey, Dr. Wynn Williams, Dr. Pike, Dr. Day (of Stafford), Dr. Cleveland, and the President, took part.

The resolution was unanimously carried.

The following gentlemen were elected officers and members of the Council for 1869:—President: Dr. Richardson, F.R.S.—Vice-Presidents: Drs. Davidson, Day, Greenhalgh, Macintyre (*vice* Dyer), Lockhart Robertson (*vice* Leonard), Tuke.—Council: Drs. Ballard, Bloxam, Cholmeley, Cleveland, Collett, Crisp, Davey, Drysdale, Dudfield, Fairley, Fox, Goss, Jackson, James, Keiller, Nicholls, O'Connor, Procter, Seaton, Rogers, Roberts, West, Whitmore, Wynn Williams, Brodie, Buchanan, W. H. Day, Griffith, Daldy, Lawlor, Morris, Wiltshire.—Honorary Treasurer: Dr. Paul.—Honorary Secretary: Dr. Sedgwick.—Auditors: Drs. Rhys Williams, Cooper Rose, and Ballard.

The PRESIDENT, in returning thanks for his re-election, said he had agreed to the recommendation of the Council for his re-election because the Council was unanimous in its vote on this question, and had urged upon him that for the next year it would be for the benefit of the Association that he should retain the chair. He had bowed, but not without much hesitation, to the wishes of the Council. He expressed his deep sense of gratitude for the confidence the Association again reposed in him.

The ordinary business having been brought to a close, the Association passed to the consideration of scientific subjects.

Dr. SEDGWICK read a report "On the Parasitic Theory of Disease." The report, which occupied over an hour, was a complete and exhaustive review of the practical bearings of this subject.

A most animated discussion ensued, in which the President, Drs. Crisp, Drysdale, Day, Ballard, Tilbury Fox, and Tuke took part.

Dr. Sedgwick replied, and the meeting adjourned.

On Thursday the Association again met in session, when several important papers were read and discussed. We shall notice these more fully next week. At half-past four in the afternoon, the President, Dr. RICHARDSON, delivered his

ANNUAL ADDRESS.

The subject selected this year by the President for his address was "The World of Physic and the World," a subject which afforded ample scope for enlarging upon the mutual understanding and relation which ought to exist between the medical world and the world in general. Dr. Richardson first described the world of physic in its separate or distinct character—in other words, as a professional world. He next dwelt on the position the world at large held towards physic, and the expectations it entertains as regards what it may look to the medical profession to accomplish for its benefit. Finally, he considered the question of physic in relation to the world, and the objects the medical world should have most at heart for the advancement and well-being of the human race. The following extracts are an illustration of the tone and character of the discourse:—

Diversity of medical learning.—The diversities of the learning of the world of physic, great as they are on many subjects, do not separate it as a body. Skilled or rude, its representatives, by virtue of their daily work, have many qualities and ripened faculties in common. Brought into close converse and intimate communion with living humanity, at times when it is feeblest and most distressed, the physician sees, as in a mirror, the back as well as the front of human nature, and instinctively recognises its shape and character with an imposed accuracy of observation, often extremely painful. The inner life, the relation of the soul to the body. The vehement will built on the powerful heart; the vehement will succumbing under the breakdown of the heart once powerful. The brain nobly balanced in structure and in function; the brain unbalanced. The criminal, by nature criminal, strong in untruth, vaulting even into temptation, proud of his own selfishness, dishonest by intent; the virtuous, by nature virtuous, born virtuous, constructed on physical mould of virtue, steadfast in all trials, generous in all conflicts, patient in all afflictions, truthful in temptations, honest in all emergencies. The body and soul together balanced, well or ill; the body exceeding the soul, the soul exceeding the body. All these conditions come before the physician, and *nolens volens* must be read. The world at large, busied with other concerns, and not understanding this forced study of the world of medicine, often criticises medical men for giving opinions respecting the mental conditions, particularly of criminals, contrary to the opinions which revenge, unmoderated by knowlenge, insensibly inspires. I picture before me a powerful man, for years the esteemed of the most estimable. What of him? His abashed friends tell me he has sinned. I see him, and his broken intermitting useless heart proclaims to me an irresponsible being clothed still in all the apparent majesty of reason. I know his brain is like a flickering gas-light when the pressure is unequal at the main. But for me to say that that man is irresponsible were to subject myself to ridicule, and even to punishment. Conscious of his own helplessness, uncertain, shrinking from himself and the world, what wonder that the man in brief time should be discovered a suicide? I have put a common experience, and because it is necessary I have tried to put it forcibly from nature. All the judges on the bench could not by all the legal knowledge in every book of law understand correctly a case of this nature. That man brought, when he sinned, before a judge, would probably have received a moral discourse on the iniquity of crime, as well as sentence to punishment for offence against the State! It is the forced reading of the inner life, of the mutual dependencies of the soul and body, of the phenomena of outward action in man as dependent on inward function, and of formed character as based on organic construction, that makes medical men appear to the world so special in their views in favour of mercy and against extreme punishment. On these points the members of the profession are not weaker, nor better, nor more generous than the rest of the world; they are simply more informed, a good century in advance of the world at the present rate of education; so advanced, indeed, that it is hardly possible to announce what they know, lest it seem extravagant and dangerous. But their knowledge charges them irresistibly with mercy. As they cannot, if they would, be angry with a man whose muscles are paralysed, because he declines to take up his bed and walk; neither can they be vindictive in regard to a man whose brain, physically unbalanced, impels action which by the abstract standard of right and wrong, *is* wrong. We take a pigeon: we freeze a segment of its brain, and straightway from destruction of balance of power, the creature begins to walk backwards, turn summersaults, and do other strange things. Shall we be angry with the bird, because it presents phenomena which are not, according to our views, natural? In brief, the world of medicine sees the phenomena of human action, in form and character, even as it sees the human body, itself a mere phenomenon. It beholds the mental form every day as though

n a stereoscope, solid, defined: it may have aversions to what it sees, or likings; but it cannot, in face of reason, anathematise or praise, as if the objects seen were deformed or beautiful according to their own absolute sovereignty over themselves. These views lead the world in general to recognise what it calls the active sympathy and benevolence of the world medical. The truth spoken, this is an error; medical men are not more sympathetic nor more benevolent than the rest of mankind: the qualities so recognised are the results of a better knowledge of the strength and weakness of the animal organism, and of the dependence of mental manifestations on corporeal health.

The World in relation to Medicine: Medical discovery.—The world at large should never forget that the progress towards perfection in medical science must of necessity be extremely slow, because of the great anxieties and risks attendant upon its cultivation and development. The chemist who is dealing with inert matter proceeds in his course without any feeling of responsibility in regard to the material substances in his hands; he can play with force and matter alike indifferently if he but take care of himself. The machinist and engineer are in the same fortunate position. But the representative of medicine is circumstanced altogether differently; the wonderful organism which he treats is his own or the same as his own; towards it he feels sympathy, fear, affection, which are returned to him. Thus in making every advance the labour of the physician is infinite, the responsibility of the highest order. He has probably to begin by testing his new thought on inferior animals; then, perchance, in many cases he must proceed to himself, and on his own body make his preliminary investigations; and when all this is achieved he has to accept the risk of pronouncing and bringing into practice that which he thinks may be done. In this stage of his proceeding his anxieties are greater than ever, for the world at large is wont to look upon him as a theorist, and to make general request that, however valuable this advance may be, it may not be tried on them. Neither can he blame the world on this account, it is so natural, though it may stand directly in his way. It is impossible, indeed, to describe how deep is the anxiety with which the thoughtful man moves step by step in the progress of new inquiry in medicine. First the mind has to give up something which it has been taught to believe and practise; next it has to see solid grounds for disbelief, and by a process of negation to begin its course; then it has to weigh every reason why it should suggest new thought in place of the old, and finally it has to place its new reasoning in the crucible of experience, and to allow learned and unlearned alike to be judges of its action. These labours and anxieties are such, the wonder is that progress is made at the rate at which it actually travels. The majority of practitioners burdened with the weight of forty-seven cases of disease continually on hand have little leisure for new research, while those who have the leisure, as a general rule, shrink from investigations that lie out of the line of their direct daily pursuits. I put it, therefore, to the members of the world at large to think generously on the advance of medicine, and to be satisfied that if the advance is slow, it is not too slow to be sure and to deserve that confidence which they ultimately will have to repose in it as the partakers of the good it shall achieve. Moreover, and without a syllable against the conservatism they exhibit when they express that they prefer to be in the hands of what they call "safe men" who try nothing new, I crave of them not to let the feeling pass into superstition and injustice. The world at large should recognise, better than it does, the great fact that in true scientific medicine there is no secrecy of knowledge, and should be more cautious than it is in believing that this or that man has some special gift or information which less favoured brethren have not. It is quite true there are men endowed with special gifts, resulting from practice or knowledge; one man has a delicate hand and strong heart for the performance of an operation, another man has not, and so far the particular man is to be trusted and rightly preferred in his particular way; but carried to an extreme, the fashion of the public to specialise all medical men is painfully absurd, and opposed to the best interests of the whole human family. To assume that one man is, what is vulgarly called, "clever," (a term of positive insult to a man of true science) for a given malady, a second man for another malady, and so on, is injurious alike to the profession and the public. It fills the professional man with false pride, and leads him from the contemplation of the body as a whole, and disease as a unity presenting a variety of phenomena, to the contemplation of phenomena individually and apart from unity. It impedes discovery—which must always be built on unity—because it divides thought, and nourishes dogma. It ruins the public judgment, because it tempts the most insignificant mortal into the belief that if he can only successfully inoculate the public mind with the assumption that he is specially wise on a given disorder, he can win on that assumption. And, lastly, it prevents men of natural broad and expanded views from cultivating their particular talents, and enshrouds them with the fear that if they give scope and character to their life, they will be considered, however accurate their learning, however sound their judgment, as too general in their aspirations, and too indefinite in their principles. In relation to this same subject, the world at large requires to be corrected in regard to the object it has before it, when it seeks the services of the physician or surgeon. Ninety-nine persons out of a hundred who go to consult a medical man never think of asking for knowledge, but are content simply to ask for what they call an opinion; nay, when they change from one medical man to another, they take the step again, almost invariably, not with the desire of knowing more; but of getting an opinion more. This is fatal error, leading to inconstancy, caprice, and deficient earnestness of purpose. An opinion can be given by anyone; knowledge can only be supplied by the learned. I am so poor an astronomer I doubt if I could calculate the time of an eclipse, simple as the problem is to the learned in astronomy; but if it would soothe the feelings of anyone present to have an opinion whether the inhabitants of the planets live exclusively on Welsh rarebits, I would undertake to give an opinion on that subject—particularly if the usual fee were remitted—as sound as could be given by Adams, Leverrier, or Herschel himself. I do not offer these remarks as against opinion based on knowledge, but only as showing the folly, so widely prevailing, of seeking opinion irrespective of knowledge. True it is that the profession itself, to a large extent, corrects this folly, because medical men, when they meet together, go direct enough to the question, not of opinion, but of knowledge, and test and try each other with a severity which those outside the pale little comprehend. It would be better for the members of the public to imitate this example; and in hours of trial, before they throw the handkerchief from this physician to that, to return disappointed, as they constantly return to the physician who knows them best, to consider on what grounds they make the change, why one man should know more than another, and what solid reason, gossiping advisers have, for upsetting relationships that ought to exist between the sick man and his conscientious adviser. The present time is one in which these words require to be very decisively spoken. The break in the relationships I have named is based often on such frivolous arguments that the faithful physician is left without heart to pursue rigorously and thoughtfully the course he sees most advantageous to his patient; and the result is that he loses interest in his charge, pleasure in his duty. In doubt or difficulty he has not and cannot have the slightest hesitation in expressing doubt or difficulty, and in saying to his patient, "I who know most correctly the capacities of my profession, the true workers in it, should like, if I were in your place, to gather the knowledge which some one of my brethren may possess." But to be allowed no opportunity for such suggestion, to be discarded to-day, and courted to-morrow, equally against reason, is a process morally bad: the good man palls under it, grows cynical, cold, doubtful. The shallow man alone luxuriates in it; the people, says he, want an opinion, and care little for knowledge; why then should I burden myself with knowledge, when opinion will pass both for knowledge and wisdom too? An intelligent interest on the part of the world at large, an interest which every honest physician longs to see evinced, would lead to a direct reform in the world of physic itself, would make the profession more secure, the sick safer, the healthy happier. It would inspire that just pride in the members of the profession which is the very heart of true attainment, and would let every man feel he is esteemed for what he is, and not for what he seems to be.

Quacks and quackeries.—It may be expected from what I have already said that I shall forthwith proceed to call in question the consort of the people with quacks; or pass an anathema on quacks and quackery individually and collectively. From this I abstain. Consort of the community with quacks is so obviously the result of ignorance, that if the most moderate share of attention were given to the subject, if a tithe of the attention I have prayed on behalf of the profession itself were given to the subject, communion with quacks and their foolish arts would naturally cease. As to the quacks, to notice them were to elevate them. Belonging strictly to the worst

of the criminal classes, they are moved by no sentiments which the most acute criticism could touch. A professed gambler may have sense of honour, a professed pickpocket may have skill, a professed burglar may have courage; the professed quack has the sins of them all, the saving qualities of none. He is, because he is permitted, a forced necessity of morbid minds. One thing only would I note in his history as most wonderful: viz., that the grand disseminators of human knowledge, the grand teachers of moral truths, the proprietors of the fourth estate allow him unblushingly to deface their fair pages with his falsehood, his snares, his open loathsome sin. Day by day the press, in daring faultless language, and sentiment, exposes vice and purifies the thought of the world; day by day, in the greater number of its organs, it sells itself to the advertisement of immoralities worse than the worst it endeavours to remove.

Medicine in relation to the world.—In asking the world at large to cultivate a more correct understanding of the world of physic, it were false to assume that the world of physic has no new obligations to perform in return, no new understandings to acquire. Quite the contrary; if it has something it ought to take, it has much also it ought to give, and that without reserve or waiting for primary acknowledgments. In the first place, the world of physic has arrived at a point when without dogmatical violence it should be ready to sustain a firm defence of all its practical part. The time has been when, in medicine universally, there was the same science as that which the still extant Lama physician, with his iron stick, leathern bag, tea-kettle, garner of vegetables, paper pills, and demoniacal horse, so proudly possesses. In simple inquiry for remedies, possessing each a specific virtue in charms or spells, our ancient fathers of now civilised medicite spent their days. Slowly they gave up the direct superstitions, so slowly that as late as the reign of the second Charles, there were some who conceived the royal touch a cure for scrofula, and when that mad monarch went about his bad business into the unknown, there were some who, with strong dash of superstition hanging to them, must needs cram dead bones, finely powdered, down the royal œsophagus into the royal stomach itself. But in time the direct superstitions died out, the actual remedies were left to work alone, and physicians of eminence became great in particular remedies for particular diseases. Old Dr. Radcliffe's book of receipts, what a tenacious hold it had! and pharmacopœias sent out from head-quarters, what wonderful forms they supplied! Philosophic oil of bricks, imagine that for the name of a remedy! and broth made of vipers, think of that for a food of curative character! These things are swept away, and the principle of trying to discover remedies by empirical observation is on the wane. The whole field of medicine is indeed so changed, that if a physician well informed in all modern advancements could possibly meet even such true men of the last century as Richard Mead, or John Arbuthnott, I doubt if there could be any common understanding between them, either in respect to the nature of symptoms, cause of disease or question of treatment. For all this there is yet great work to be done. Still influenced by the crude hypothesis of the possession of particular remedies for particular diseases, still vain of its method of learning by loose and disconnected observation, the medical mind is weak, watery even, in the knowledge of positive treatment. It flatters itself with what it calls experience—which means individual opinion—of some particular virtue, tested all on one side, without a single research in the line of disproof, and without the remotest allowance for the almost certainty of coincidence. Or running into an extreme of disbelief, it flatters itself on an experience in an opposite direction, experience of doubt as to the positive value of medicinal remedies altogether. Thus it is open to any man to obtain notoriety for any remedy however absurb, and based on hypotheses however foolish, if he will swear hard enough and loud enough to the good results which are seen while the patient is under the remedy, and nothing more. Thus it is also open to any man to gain notoriety by practically giving no remedies at all, if he will only swear hard enough and loud enough to the good results which were observed while the patient was under no remedy, and will be silent on all else. Let it not be concealed a moment that this state, though it mark only a transitional stage of learning, is all wrong. It makes the profession, where it should be as firm as adamant and as certain as time, loose as sand and uncertain as the wind. Thus circumstanced, it gives way to popular cries, and with blushing face bends its head in mass even to the ignorant fashions of the hour.

Dr. Richardson concluded his address as follows:—Our million of physic—scattered over every part of the planet where there is enfeebled humanity to be tended, cherished, and upheld, by night and by day,—it and its relations to the world, its good, its bad, its hopes, its despairs, we can on this occasion follow no longer. I have tried to present it faithfully. I have tried to show its strength; I have not tried to conceal its weakness. Called forth by the world itself from dire distress, a natural birth, its mere existence proves it to be a useful million of the hundred thousand millions in which it lives and moves. Who follows its work with his whole heart, and for itself, must needs be one whom the best may envy and approve; who follows its work with no heart, and for himself alone, must needs be one the worst may pity and contemn. Its plainest, simplest work well done, the world of physic must remain in fair comparison with all the world beside; its noblest work realised it must make all science subservient to its grand intents, and ultimately reveal the mystery of life with a crystal clearness and simplicity that shall render only the more wonderful, and the more sublimely inapproachable, the wisdom of the uncreated, super-essential, and all-beauteous mind.

In the evening, the members of the Association dined together at Willis's Rooms.

Correspondence.

"Audi alteram partem."

A CASE OF SYMPATHETIC OPHTHALMIA CURED BY NEUROTOMY: A SUBSTITUTE FOR REMOVAL OF THE EYEBALL.

To the Editor of The Lancet.

Sir,—You will I trust permit me to make some remarks upon an article with the above title which appeared in The Lancet of November 14th. After careful perusal of the case recorded as cured by neurotomy, I have been unable to discover that any sympathetic ophthalmia was ever present; indeed, the very symptoms which the reporter of the case states to be "pathologically of cardinal importance" in the diagnosis of sympathetic inflammation of the ciliary body were absent *in toto*,—viz., "fine capillary injection and tenderness of the ciliary region." These symptoms existed only in the primarily affected eye.

The intolerance of use and of bright light from which the patient suffered was due solely to myalgia of the ciliary muscle, and, what is frequently associated with it, hyperæsthesia of the ocular branches of the fifth nerve. This is one of the most common forms of reflex traumatic irritation, and yields in numerous examples to general as distinguished from surgical treatment. It may exist for months without leading to tissual change, or permanent injury to vision. It may be said the issue I have raised is purely a matter of opinion, or of authority; I will therefore give in support of my views a condensed summary of a striking case, of which I made very full notes. The patient was seen by me in consultation with Mr. John Jordan. It will serve to prove, when taken in conjunction with another case which I shall relate, that the operation performed by Mr. Z. Laurence had no influence, *qua* neurotomy, upon the result he obtained, and that the duration of his treatment was by comparison unusually protracted.

A healthy pistol-maker, aged thirty-six, had his right eye penetrated, on July 23rd, by a fragment of percussion-cap, which induced blindness, internal ophthalmia, severe neuralgic pains, acute sensibility of the globe to the touch, and rapid atrophic changes. The man refused operation, and the fragment remained in the eye for nine months. Three weeks after the accident, on September 15th, the left eye became dim, especially in bright daylight. He was unable to read, write, or appreciate the size and distance of objects, so that he burnt his fingers in attempting to snuff a candle.

Sept. 25th.—He commenced the use of prussic acid drops to the eye, mustard sinapisms to the left brow; internally, iodide of potash. The tissues of the left eye were normal.

Third day of treatment.—Dimness lessened. Has written a short letter without difficulty. When he relaxes his accommodation by everting the globe, his definition and estimate of distance of objects are improved.

Fourteenth day.—Reads in a clear light.
Twenty-fourth day.—Bears candlelight.
Thirty-first day.—Works five hours daily at his trade.
Thirty-eighth day of treatment.—Works seven hours daily.

Mr. Laurence's surgical patient was six weeks in hospital; my medical case on the fourteenth day of treatment recovered the power of reading; and in thirty-one earned his daily bread at work requiring good sight.

As regards the first idea and first practical application of neurotomy as a means of cure for reflex irritation, I crave permission to say a few words. Mr. Laurence, in his desire to pay tribute to the great genius whom we all delight to honour—Dr. von Graefe,—has forgotten to note a case recorded by an English *confrère* in the *Medical Times and Gazette*, 1861, p. 327, and which I will therefore epitomise.

An aged woman applied to Mr. Vose Solomon, on May 1st, 1860, who had lost the sight of her left eye from inflammation of the iris and choroid of eighteen months' standing. The vision of the right had been weak a year, and during the last five weeks so much so that reading was impossible. A neurotomy of the left ciliary nerves was made on May 1st, and in three days vision had become as good in the right eye as before the attack of irido-choroiditis. No relapse followed.

I am not certain—Mr. Laurence will, I am sure, kindly correct me by giving references if I am wrong,—but I believe Dr. von Graefe's suggestions followed the publication of this case, just as Dr. Donders' views of glaucoma were made public after the appearance of my papers on the same subject in the periodical to which reference has been made.

A regard for your valuable space obliges me to pass without comment other statements in Mr. Laurence's short and, I regret to say, sensational paper, which are provocative of criticism; such as the frequency of plastic iritis, the designation of excision as a bloody operation; also, on the side of omissions, the neglect of all record of the progressive changes effected in the condition of the eye which he submitted to operation.

Enough, I would fain hope, has been adduced by me to cause him to reconsider such parts of his communication as I have felt constrained, in the interests of practical ophthalmology to controvert, and to give a fair representation in his future writings of the labours of our English brethren.

I am, Sir, your obedient servant,

Queen's College, Birmingham, November 20th, 1868. JAS. VOSE SOLOMON.

H.R.H. THE DUKE OF EDINBURGH.

To the Editor of THE LANCET.

SIR,—Having but recently returned from Australia, my attention has, for the first time, been directed to an annotation in your journal of May 30th last upon the attempted assassination of H.R.H. the Duke of Edinburgh, the particulars of which were furnished by Dr. Wright, of Sydney. Without wishing to impugn the accuracy of the statements in reference to the case itself, I cannot refrain from making a few observations upon the very partial manner in which the services of the medical men present have been represented.

A reader of the annotation in question would assume that Dr. Wright, and Dr. Watson, of the *Challenger*, were the only medical attendants upon H.R.H., and that the other medical men present were merely observers, their names being recorded as having subsequently arrived on the spot.

Now, Sir, the facts are briefly these. On the Duke's removal to the tent, the wound was examined by Dr. Watson and myself, Dr. Wright furnishing the probe, as remarked by himself. From the time H.R.H. was taken to the tent until his removal to Government House Mr. Powell, of the *Galatea*, and myself never left his side, but, in conjunction with the Hon. Eliot Yorke and Commander Campbell, continued for a space of two hours or more upon our knees bathing the Duke's temples, administering iced champagne (as narrated by Dr. Wright), lifting him bodily on to the mattress after he slid off, and giving such attention as his case demanded; whilst Dr. Watson and Dr. Wright were standing in the tent conversing with numerous others. Indeed, I was not aware the latter gentleman had remained until he proffered his handkerchief when I requested one for the purpose of bandaging the wound previous to the Duke's removal to Government House. I may also mention that I accompanied H.R.H. to Government House in the steamboat, supporting his head during the violent retching which occurred at the time, and only retired when he was comfortably placed in bed, and under the care of the senior medical officer of the *Galatea*, Dr. Young.

I would further remark that as a paragraph appeared the next morning in the Sydney papers, detailing the services of Dr. Wright at some length, my friends there thought it but right and fair that some notice should be taken of those rendered by myself, and on the following day, March 12th, among other observations it was stated that "Dr. Tassell was among the very first in attendance upon H.R.H., and rendered valuable service by applying ice to the hands, face, &c., and otherwise attending to his immediate comfort by divesting himself of his coat to keep the Duke warm during his passage to Sydney, which H.R.H. gratefully retained until his arrival at Government House."

Apologising for thus troubling you,

I am, Sir, your obedient servant,

Wye, Kent, Dec. 1st, 1868. ROBERT TASSELL, M.D.

*** From the above letter, there can be no doubt that Dr. Tassell rendered very valuable aid at the most critical time; and as we hear that Dr. Young, Dr. Watson, and Mr. Powell have each received promotion, we think it but just that the services of Dr. Tassell, or of any other civil professional man concerned in the affair, should also be recognised in a suitable way.—ED. L.

OUR ARMY DOCTORS.

To the Editor of THE LANCET.

SIR,—The letter of "An Old Combatant Officer" in your impression of the 24th ult. is so practical, and offered in such a friendly spirit towards the Medical Department, that it would be a pity to allow it to pass without comment; and if you will allow me space in your columns, I will endeavour briefly to elucidate his remarks.

He says—"1st. Abolish all governors," &c. Yes, truly; and as far as "retrenchment" goes, what would be the result? On consulting the estimates, we find that at the two establishments of Netley and Woolwich, under this head £1939 per annum are paid to the military staff, in addition to the allowances, quarters, and in some instances the half-pay of their rank. This would be a trifle, if efficiency and benefit to the service were secured; but that is a doubtful point, and I suspect that many of the old surgeons will agree that the present general hospitals are in no degree better administered than in the days when Dr. French, C.B., or Mr. J. R. Taylor, C.B., were the chiefs of Fort Pitt, and when the sole control was vested in them, subject only to the General commanding the district.

"2ndly. Place all purveyors," &c. As matters are now, the P.M.O. is a nonentity in his own hospital, chiefly employed as a channel of circumlocution, and liable to have any opinion of his, except as to actual medical treatment, overruled by the commandant, the staff-captain, or the purveyor—an anomalous and humiliating position.

"3rdly. Hold him responsible," &c. In a well-organised hospital, attention to these points requires but a short time daily to regulate. It becomes, therefore, a puzzle as to how the military staff can find occupation.

"4thly. Amalgamate," &c. Establish a professional and scientific, instead of a military, esprit; make men proud of being "doctors," and then the adventitious aids of military pomp will be of small importance. Give the surgeon more real responsibility, and relieve him of the incubus of perpetual "inspections." Above all things, take away the hideous cocked hat with funereal plume, and let there be some general uniform, suitable for wear both in garrison and the field, and irrespective of the various arms of the service to which the surgeon may be attached.

Lastly, abolish the cognomen of *Assistant*-Surgeon, about which there is so much heartburning. Appoint "Surgeons" and "Senior Surgeons" of the "Medical Staff of the Army," taking rank according to date of commission, and available for regimental or general duties, as may be needed.

A limited number of "inspectors" would complete the establishment.

I am, Sir, your obedient servant,

Oct. 26th, 1868. INVESTIGATOR.

THE ROYAL SANITARY COMMISSION.

To the Editor of THE LANCET.

SIR,—Permit me, in support of your remarks upon the Secretaryship of the Royal Commission on the Sanitary Acts, to suggest that at all events a medical secretary should be added to the legal one. There are many precedents for such double secretaryship—for instance, the Law Procedure Commission, the Primary Education Commission, and others. I write solely in the public interest, being myself a barrister, and not in any way connected with a medical man at all likely to aspire to the post I suggest. The legal secretary will have important work; he can collect all the Sanitary Acts, both general and local, but will require a medical man to make the proper preparations for the taking of evidence (much of which must involve medical details), and for the correct arrangement of the "blue-book," which will, if the Commission do its duty, contain a great body of facts most valuable as the groundwork for future legislation.

I am, Sir, your obedient servant,

SALUS POPULI.

THE MARSHALL HALL METHOD.

To the Editor of THE LANCET.

SIR,—I do not know whether you consider the following case of interest in furtherance of Dr. Ellis's opinion of the "ready method" (THE LANCET, October 24th),—viz., "that it should be tried *well*, and not merely from *two to five minutes*."

On Sunday morning, October 18th, I was sent for to attend a patient, Mrs. B——, aged thirty-four, in her sixth confinement. On examination, I found an arm presenting, and therefore immediately proceeded to turn. There was no difficulty in finding one of the feet; the hips were easily expelled during the next pain, but the shoulders seemed to be for several minutes completely fixed. The head was a very large one. It was a long time in passing through the pelvis, and from the pressure on the cord the child's body soon became livid. When born the infant appeared perfectly lifeless. I immediately commenced the "ready method," and continued it for nearly *three-quarters of an hour* before my efforts were rewarded by the slightest gasp. The infant then gave a deep sigh, and after continuing the treatment for a quarter of an hour longer, I was able to hand it to the nurse, who with the mother had been convinced that the child was dead, the former exclaiming, "It's no use rolling the poor thing about like that, Sir;" and the latter, "I am sure my baby's dead, for it doesn't cry." The child is living and doing well. I may add that two years ago I had a similar case, in which the "ready method" was successful after half an hour's trial.

I am, Sir, your obedient servant,

Walsham-le-Willows, Dec. 2, 1868. W. H. SHORT, L.R.C.P. Edin.

THE NEW PHARMACY ACT AND GENERAL PRACTITIONERS.

THE Privy Council would seem at length to be conscious of the blunder which was made in the new Pharmacy Act in reserving to apothecaries only the right, hitherto possessed by medical practitioners, of dispensing medicines, as was the case when Lord Robt. Montague substituted the word "apothecary" for the expression "qualified medical practitioner," as originally proposed in the Bill. A way out of the difficulty has been devised by "a free and easy" reading of the terms of the Act. The *Pharmaceutical Journal* for the present month contains an article in which an attempt is made to show that the term "apothecary" is intended to signify any qualified practitioner who possesses the power to practise medicine, and that the dispensing of medicines by the general practitioner in his private surgery does not constitute selling. It is stated that this view is shared by the authorities at the Privy Council office. This amounts, in fact, to the announcement that neither the Pharmaceutical Society nor the Privy Council will enforce any of the provisions of the Pharmacy Act against qualified medical practitioners. It is only right to add that the Pharmaceutical Society never intended to interfere in any way with the rights of medical men. The Privy Council is alone responsible for the objectionable clauses in the Act, and these will no doubt be altered as soon as Parliament meets.

COURT OF QUEEN'S BENCH.

THE CORONERSHIP OF WEST MIDDLESEX.

THE QUEEN *v.* DR. DIPLOCK.

THIS case, which it will be recollected arises out of the late election for the Coronership of the Western Division of the County of Middlesex, in which Dr. Hardwicke and Dr. Diplock were candidates, and the latter was declared by the Sheriff to be elected, came again before the Court of Queen's Bench on an interlocutory proceeding on Wednesday, the 25th ult. The Court of Queen's Bench granted a rule absolute for the filing of an information, in the nature of a *quo warranto*, calling on Dr. Diplock to show cause by what authority he exercised the office of Coroner. The information was duly filed, and Dr. Diplock subsequently pleaded to it merely that he was duly qualified, and that the Sheriff had declared he was duly elected. The prosecution delivered a replication to that plea, denying the qualification, and alleging that Dr. Diplock was not duly elected by a majority of valid voters, and that the majority was obtained by votes given at wrong polling-booths; and the prosecution also demurred to the plea on the ground that it did not allege that Dr. Diplock was duly elected by a majority of duly qualified voters. On the 16th Nov. Dr. Diplock obtained a rule *nisi*, calling on the prosecution to show cause why the replication and demurrer should not be set aside, on the ground that the Crown had no prerogative to reply several times to a plea to an information in the nature of a *quo warranto*, nor to reply and demur at the same time to such a plea. This rule was argued on the 25th November by Mr. D. D. Keane, Q.C., and Mr. Day, for the prosecution; and by Mr. Gray, Q.C., for Dr. Diplock. After hearing the arguments of counsel, the Court unanimously gave judgment for the prosecution, and against Dr. Diplock, and condemned the latter in the costs.

THE SCOTCH UNIVERSITIES.

THE returns received up to the time of our going to press show that the polling in the case of the Universities of Edinburgh and St. Andrews was in favour of Dr. Lyon Playfair. The close of the third day's poll gave Mr. Swinton 1698, and Dr. Playfair 1690 votes. At 11.30 A.M. on Thursday, however, Dr. Playfair was ahead of his opponent by 80 votes. The return received from Glasgow and Aberdeen gave the same number of votes polled for the two candidates, Mr. Moncreiff and Mr. Gordon, and is unreliable.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the first part of the professional examination for the diploma of Fellow at a meeting of the Court of Examiners on the 25th ult.:—

W. H. Thornton, J. H. Keeling, A. V. Best, J. O. Brookhouse, C. H. Leet A. Coleman, T. Savage, G. Eastes, H. Arnott, F. P. Edis, J. D. Bush, A. Raynor, C. E. Hear, J. L. Bullock.

UNIVERSITY OF LONDON.—The following are the lists of candidates who passed the examinations indicated:—

M.D. EXAMINATION.

Cole, Thomas, St. Bartholomew's Hospital.
Edis, Arthur Wellesley, Westminster Hospital.
Legg, John Wickham, University College.
Michell, Thomas, London Hospital.
Philpot, Charles William, B.Sc., King's College.
Smith, Robt. Shingleton, B.Sc. (Gold Medal), King's College.
Spender, John Kent, King's College.

M.S. EXAMINATION.

Beck, Marcus (Gold Medal), University College.
*Fox, Edward Lloyd Harries, M.D., University College.
*Howse, Henry Greenway, Guy's Hospital.

* Worthy of Medal.

B.S. EXAMINATION.

Pass Examination.

Anderson, Tempest, B.Sc., University College.
Langmore, John Wreford, University College.
Poore, George Vivian, University College.
Ridge, John James, B.A., B.Sc., St. Thomas's Hospital.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Nov. 26th:—

Chapman, George, Brierley-hill, Staffordshire.
Hill, Joseph Higham, Royton, Lancashire.
Hurlstone, Adam Paton, Cheltenham.
Thomas, John Lewis, Llynon, Anglesea.
Ticehurst, Augustus Rowland, Hastings.
Wilkinson, Wm. H. Whiteway, Holloway.

The following gentleman also on the same day passed his first examination:—

Batte, John, Westminster Hospital.

AT the meeting of the Royal Medical Society of Edinburgh on Friday evening, November 27th, the following gentlemen were elected Presidents for the year 1868-69:—F. Pritchard Davis (senior); A. Rabagliati, M.A., L.R.C.S.E.; C. Holden, M.B., C.M.; J. S. Cameron, M.B., C.M., B.Sc.

THE Pontypridd guardians have appointed a public prosecutor under the Vaccination Act.

AT the last meeting of the Morpeth guardians, it was determined to convert the present general infirmary into a fever hospital.

THE Lord Mayor (Alderman James Lawrence) has been elected President of the Royal Hospitals of Bridewell and Bethlehem, in succession to the late Mr. J. E. Johnson.

DR. COOPER, of Philadelphia, recommends Tonka Bean in Whooping-cough. The dose is five drops of fluid extract in water every three hours, increased to eight or ten drops. The bean contains the active principle of clover-tops—*coumaria*.

A VERDICT of manslaughter has been brought against Mr. Thomas William Popplewell, M.R.C.S. and L.S.A., in consequence of his treatment of the obstetric case of Mrs. Clifford, of Bethnal-green. Some complication appears to have occurred in connexion with the placenta, whereupon Mr. Popplewell sent for another "doctor," namely his assistant, Mr. Bunting, a chemist, and formerly a medical student. Mr. Popplewell thereupon proceeded to operate, and in doing so seems to have brought away the whole uterus. Mr. Phillips, the divisional surgeon of police, who made the post-mortem examination, said that "the uterus, the ovary, and part of the pericardium (?) had been removed. Making allowance for an impaired condition of tissues, he gave it as his opinion that considerable force must have been used before the rupture took place which was revealed by the post-mortem. The removal of the uterus by forcible means would cause a shock to which any woman in all probability would succumb."

BIRMINGHAM LYING-IN HOSPITAL.—In their annual report, just published, the Committee give their experience of the working of this institution under the system provisionally adopted at the last annual meeting. During the year the admission of in-patients and the out-door sick department have been discontinued, and the whole work of the charity concentrated on the out-door midwifery. The patients are no longer attended by resident surgeons, but by trained midwives, of whom three are now employed, and it is expected it will be necessary to obtain a fourth. The town is divided into districts, and a midwife allotted to each. The honorary surgeons are only called in by the midwives in difficult cases, of which only four have occurred in the 156 cases at present attended. In these cases no death occurred among the mothers, and among the children two died, and three were stillborn. The Committee, having made numerous inquiries, report that the attendance of the midwives is satisfactory to the patients, and the permanent adoption of the new system is therefore recommended to the governors. The sale of the hospital building, now unnecessary, will, it is expected, enable the "Lying-in Charity," as it is to be called, to start on its new course unencumbered by debt, but a larger subscription list than the present one will be required to meet the work proposed to be undertaken. We hear that many medical men in Birmingham do not view with favour the importation of midwives, who, by their connexion with the Lying-in Charity, will have the best possible recommendation for employment by the poorer classes. We hope the results will not justify the fear that too cheap midwifery will be thus perpetuated, but we certainly should have preferred to see the work of the charity done by district surgeons paid per case, and acting under the superintendence of the honorary staff.

TESTIMONIAL TO DR. CHOWNE.—On Thursday, the 3rd inst., a meeting of the friends and supporters of Charing-cross Hospital took place in the Board-room of that institution, for the purpose of presenting to Dr. Chowne a testimonial in acknowledgment of the zeal and ability with which he has, for the unusually long period of thirty-three years, discharged the responsible and onerous duties of physician to the hospital; of the care and kindness he has shown to the patients placed under his charge, and his assiduity in promoting the general welfare of the institution. The testimonial, consisting of five pieces of plate, of the value of upwards of one hundred guineas, and manufactured by Messrs. Smith, of King-street, Covent-garden, was presented, on behalf of the subscribers, by Robert Few, Esq., one of the trustees of the hospital. Dr. Chowne acknowledged the compliment, thanked his friends for the honour done him, and gave an interesting account of the origin and progress of the hospital, and of his connexion with it from its foundation. The inscription on the principal piece of plate was as follows:—"Presented by Friends and Supporters of Charing-cross Hospital to W. D. Chowne, M.D., F.R.C.P., in recognition of the valuable services rendered by him to the hospital during a period of thirty-three years. December 3rd, 1868."

TRACHEOTOMY IN CROUP.—Dr. Jacobi records his experience of tracheotomy for croup in an article in the *American Journal of Obstetrics*. He has operated in sixty-seven cases, and in thirteen recovery took place. The after-treatment in some cases was tedious, and in four cases the cause was peculiar. The removal of the tube from the trachea, after the second week, was followed by alarming dyspnœa, at once relieved by re-introducing the tube. The cause was found to be the "presence of polypoid excrescences, sometimes numerous, from the size of a pin's head to that of a pea and more, originating on the margin of the tracheal wound, in one case on the lower part of the sore larynx itself. It required a great many applications of nitrate of silver, or subsulphate of iron, to destroy them. Their disappearance would instantly relieve the symptoms, and allow of the final removal of the tube from the trachea."

ANTHRAX.—Guiseppe, of Milan, declares himself to have been especially successful in the treatment of anthrax by the topical employment of perchloride of iron in conjunction with incisions.

DILATATION OF THE URETHRA. — On the occasion of a new instrument for forcible dilatation being presented to the Academy of Medicine, M. Chassaignac protested with great warmth against the use of such instruments, considering them highly dangerous, and holding the opinion that gradual dilatation was the preferable course. He considered that the Academy should not lend the weight of its authority to such exhibitions. M. Ricord, the president, who through courtesy had himself presented the instrument, fully concurred with M. Chassaignac, and joined in the condemnation of the method of forcible dilatation.

NORTH STAFFORDSHIRE MEDICAL SOCIETY.—This Society held its annual meeting on Thursday, Nov. 26th, at the North Staffordshire Hotel, Stoke-on-Trent, with a good attendance of members. The retiring president (Ralph Goodall, Esq.) delivered the annual address, reviewing the more important discoveries and improvements which had marked the progress of medicine and the collateral sciences during the past year. At the conclusion of the address, a hearty vote of thanks was passed to the author. The Secretary's report followed, from which it appeared that the Society is in a flourishing state as regards both its finances and the number of its members. The election of officers for the ensuing year resulted as follows:—President: R. Garner. Vice-president: R. Goodall. Treasurer: J. Yates. Hon. Sec.: J. M. Taylor. Committee: W. Acton, J. Alcock, W. H. Folker, A. B. Greatrex, and W. D. Spanton.

INTRA-UTERINE INJECTIONS. — These have warm supporters and very determined opponents. Lately, M. Gantillon proposed an ingenious way of practising such injections, which M. Courty, of Montpellier, deprecates with all his

might. Now comes M. Pajot, Professor of Medicine at the Faculty, who says that he uses them very successfully in uterine catarrh. He uses a syringe the size of the little finger, puts into it as much of a solution of nitrate of silver as will fill a thimble, and fixes to the syringe a very slender, long, and curved canula, which moves freely in the cervix. A wooden speculum filled with water is used; and by these means the injection is prevented from having any disagreeable consequences.

LADY DOCTORS.—MRS. Nadidja Suslava, who lately obtained the diploma of Doctor of Medicine at Zurich, studied principally at Vienna, where she attended lectures, not as a registered student, but as a guest. The Faculty had at that time refused to recognise her as a regular pupil. The present director of the school is, however, more gallant, as he has just granted registration to Miss Laura, said to be the daughter of a New York barrister. This lady is anxious to study diseases of the ear, and is an assiduous pupil of Professor Pollitzer; she attends, however, other lectures, and is a very frequent visitor in the dissecting room.

DONATIONS AND BEQUESTS TO MEDICAL INSTITUTIONS.—£100 has been given to the Royal South Hants Infirmary, Southampton, anonymously. A gentleman has given £72 (per Arthur Ryland, Esq.) for the purpose of furnishing a ward in the General Hospital, Birmingham; and a legacy of £50 has been bequeathed to it under the will of the late Isaac Lea, Esq.

BEAUMONT MEDICAL SOCIETY. — The commencement of the fifth session of the above Society was recently celebrated by a dinner at the Ship and Turtle, Leadenhall-street. Dr. Herbert Davies, the president, took the chair, and was supported by several of the staff of the London Hospital. There were nearly forty present. The dinner was admirably served, and nothing was wanting that could add to the comfort of the guests. The chairman, in proposing the toast of the evening, congratulated the members upon the very flourishing condition of the Society, and said he believed that a gathering like the present tended greatly to blend medical men together, to give healthy relaxation to the overtaxed practitioner, and to bring those practising in the same neighbourhood into friendly and harmonious intercourse.

THE ISLE OF WIGHT MEDICO-CHIRURGICAL SOCIETY recently held its first quarterly meeting at Newport. The President (H. Waterworth, F.R.C.S.) in the course of his inaugural address said that the chief object of the Society was to make the members of it better acquainted with each other, and thus render impossible those petty misunderstandings which were founded, for the most part, on baseless gossip. Although it did not aspire to rival others in scientific result, he thought their Society might prove useful by stimulating them carefully to observe, record, and communicate cases of interest. The honorary secretary for Newport then read a paper "On Cholera, with reference to the Epidemic in Newport in 1866." Mr. Barrow, of Ryde (the founder of the Society) followed with reports of several interesting cases, which gave rise to a lengthened discussion.

HEALTH OF SCOTLAND. — The Scotch Registrar-General records a mortality-rate last summer of 20·9 per 1000, as against an average of 19·0, the heat and drought having operated in Scotland, as in England, unfavourably on the public health, although to a less extent north than south of the Tweed. Scarlet fever was very prevalent and fatal, especially over the southern half of Scotland. Much typhoid fever also generally prevailed; while measles would seem to have been especially active among children in the northern districts. An increase of brain disease was observed during the very warm weather.

Obituary.

DR. JOSEPH BROWN,

(OF SUNDERLAND).

THE few lines in which last week we put on record the death of Dr. Brown will indicate to our readers the high opinion we entertained of his character, and our deep regret at the fact of his death. It is true that when men come to be eighty-four years old, and compassed about with much infirmity, their death is neither unreasonable nor unexpected; but still there was something in Dr. Brown's mental condition down to the very last which gave the feeling that he was still enjoying life, and which made him still capable of being a joy in the lives of those about him. It is but a few weeks since we saw him, and then he was only a little feebler than he had been for years. Though his walking power was slight, he was still able to go out, with the kind assistance of friends. He was able to talk of passing and stirring events with the clear ring of his old intelligence and even his old humour. Always a great and consistent politician, of the liberal order, he had a clear eye as to the men that were to have his prized vote, and one of the last intelligent acts of life was to sign a voting paper in favour of Dr. Lyon Playfair, in the contest for the representation of Edinburgh University, of which Dr. Brown was one of the most distinguished graduates. Still it was apparent to those who only saw him infrequently that age was doing its slow but sure work upon him, and that any slight influence would suffice to snap the thread of life. And so it proved. On Friday the 13th inst. Dr. Brown was in his usual health, and "saw his dispensary patients with his accustomed care," says the *Sunderland Herald*,—and only those who have seen him examine dispensary patients can know what that "accustomed care" meant. "He came home complaining of having taken cold, and feeling weak and ill. The following day his cough was distressing, and, though still able to rise, the symptoms of inflammation of the lung slowly but steadily increased in urgency until Tuesday, when, for the first time, he consented to remain in bed. From this time he gradually sank, frequently rousing from the lethargy into which he was sinking to recognise the familiar voices of those he loved, and answering with difficulty, but often with quiet humour, their tender questionings as to his state."

The body of Dr. Brown was followed to the grave by (in addition to three coaches containing mourners) nearly the whole of the medical profession in Sunderland, the Mayor and many members of the Corporation, committees of the Sunderland Infirmary and the Literary Institute, several townsmen, and about twenty carriages of the principal gentry of the neighbourhood.

The last public act of Dr. Brown's life was to see dispensary patients, and in doing this he caught the cold that sufficed to overcome his little remaining strength. There was something singularly appropriate in this termination of Dr. Brown's life; for although he had all the qualities of a great physician—a strong mind, well cultured and richly stored; most extensive experience; great literary power, the proof of which will remain in his various works, and in the best medical periodicals of his time; and a true dignity of manner;—though he had all those qualities which made him the physician of his own town and the adjoining neighbourhood, yet he was emphatically one of those physicians that, by the very nature of their humanity, have standing relations and deep sympathies with the poor; like Alison, of Edinburgh, of whom it used to be said that if you wanted him you would be most likely to find his carriage at the door of some Irishman, with fever, in the Cowgate.

> "In misery's darkest caverns known
> His ready help was ever nigh,
> Where hopeless Anguish pour'd his groan,
> And lonely Want retir'd to die."

We have dwelt so long on the facts of Dr. Brown's death, and the manner of it, that we have left ourselves little room in which to speak of his long, eventful, useful, and honourable life. This is the less to be regretted as it was well known, and has been admirably told by himself lately in memoirs of his own time, and now in the article in the *Sunderland Herald* from which we have quoted. He was born in North Shields in 1784, the son of a much-respected member of the Society of Friends. He broke loose from Quaker principles, and having previously studied medicine, entered the army, and joined the staff corps of Wellington. He was present at the battles of Busaco, Albuera, Vittoria, the Pyrenees, and Nivelle, and gained warm commendation for his services. After the battle of Waterloo Dr. Brown was with the army of occupation until its retirement from France. On his return to England he graduated, married, and settled in Sunderland, where he lived, a most accomplished physician, (physician to the infirmary,) a leading politician, a man of varied learning, a born philanthropist, a sound magistrate, once mayor of the borough, and a most kind friend—one of those men whose death at any age seems premature.

RICHARD HOBSON, M.D. CANTAB.

(OF LEEDS.)

SOON after Mr. Teale and Mr. Smith, another of the well-known band of Leeds medical men, Dr. Richard Hobson, has passed away, at the age of seventy-three. This event, which occurred on Monday, was almost unexpected; although Dr. Hobson had lately suffered from one or two accidents, hopes were entertained that he would recover. The deceased gentleman was thrown out of his carriage some months ago, but was fortunately but slightly injured; following closely, however, upon that accident, another occurred in his house, by which he fractured his thigh. He was walking from one room to another when his foot caught in the carpet, and he fell with such force that his thigh was broken. The result was that he was confined to bed for nearly three months, being attended by Mr. Scattergood and Mr. Bradley, the house-surgeon of the Infirmary. He recovered so much that he was, even so late as Sunday last, out for a drive.

The deceased gentleman was born in Cumberland, where his father lived, near Whitehaven, we believe at Cross House. In his youth he was devoted to field sports, and it was not until comparatively late in life that he studied the science of medicine. He was a student at St. George's Hospital, and at Queen's College, Cambridge. He took his degree of M.B. in 1825, and that of M.D. in 1830. The year after he took his degree of M.B. he settled in Leeds; and such was his ability and skill in his profession, and the confidence generally entertained in him, that he speedily secured a large and lucrative practice as a consulting physician. In these earlier years he wrote for the *Medical Gazette* two treatises, one on Diabetes, and the other on the External Use of Croton Oil; and indulged his taste for field sports. The *Yorkshire Post* informs us he kept a number of harriers, and devoted himself with much ardour to coursing, being a leading member of the Harewood Coursing Club. At this time, also, he was a breeder of race-horses, and generally applied himself to rural pursuits. Afterwards he became a fox-hunter, and for many years hunted with the Bramham Hunt, but owing to his increasing age he had not done so for many years. He married the daughter of the late Mr. Peter Rhodes, of Leeds,—a lady who died some few years ago. In addition to the studies peculiar to his profession, Dr. Hobson's taste led him to take a great interest in natural history, and he formed one of the best collections of stuffed British birds, of mosses, and of lichens, in the West Riding. In other curiosities his house was equally rich. The only public institutions in which Dr. Hobson took part were the Infirmary, and the Hospital for Women and Children, for each of which he was a consulting physician. He was elected in that capacity for the Infirmary on the 30th of September, 1833. In 1843, he resigned, and was succeeded by Dr. Chadwick. About two years ago, Dr. Hobson published a book, "Reminiscences of Charles Waterton," which has since become very popular. In politics he was a staunch Conservative, but he took no active part, preferring the quiet and secluded paths of literature and science. Personally, he was a kind, genial, hospitable man, and was generally held in esteem.

EDWARD PHILLIPS, M.D., M.R.C.P., J.P., &c.

(*From a Correspondent.*)

BY the death of Dr. Phillips, Coventry and its neighbourhood have sustained a heavy loss. The feeling of regret is deep and universal; all classes share it, and all feel that a good man has passed away. By the poor he is especially lamented, for to them he has always been a friend. As a physician his reputation for years has been deservedly high. To his sound judgment and great skill in the treatment of disease were added a thorough kindness and gentleness of manner, and an evident heartfelt sympathy with his patients. At the time of his death, Dr. Phillips was the senior magistrate for the city of Coventry, physician to the Coventry and Warwickshire Hospital, surgeon-major to the 2nd Batt. Warwickshire Rifle Volunteers, honorary secretary to the Horticultural Society, &c. He was also a Fellow of the Linnæan and of the Royal Medical and Chirurgical Societies.

MEDICAL APPOINTMENTS.

BARRINGTON, T. H., M.D., has been elected Mayor of Londonderry.

BAKER, S. I., M.R.C.S., Deputy Coroner for Berks, has been appointed Certifying Factory Surgeon for Abingdon and its neighbourhood.

BINGHAM, J. J., L.R.C.P.Ed., of the Derbyshire General Infirmary, has been appointed Assistant Medical Officer to the Toxteth-park Township Workhouse, vice A. E. Carter, L.R.C.P.Ed., who has been appointed a District Medical Officer.

BROWNE, C. W., M.R.C.S.E., has been appointed District Surgeon of Stockenstrom, Cape Colony, South Africa.

CHARTERIS, M., M.D., has been appointed Assistant-Physician to the Glasgow Royal Infirmary Dispensary.

CHAPTER, T. L., M.R.C.S.E., has been appointed Medical Officer for the Bramley District of the Bramley Union, Yorkshire, vice Francis Hudson, L.R.C.P.Ed., resigned.

DOWSE, T. S., M.D., L.R.C.P., M.R.C.S., has been appointed Registrar to Charing-cross Hospital.

ELLIS, T. S., M.R.C.S.E., has been appointed Surgeon to the Gloucester Infirmary, vice C. Barrett, F.R.C.S.E., resigned.

FIELDING, Mr. T., has been appointed Medical Officer for the Parishes of Chesilborne and Melcombe Horsey, in the Cerne Union, Dorsetshire, vice J. Ewens, L.R.C.P.L., resigned.

FITZGIBBON, F., L.K.Q.C.P.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Rosscarbery Dispensary District of the Clonakilty Union, Co. Cork, vice Thomas Fitzgibbon, L.K.Q.C.P.I., deceased.

HENRY, Lt., has been appointed Physician to the Suffolk General Hospital, Bury St. Edmunds, vice W. Cooper, M.D., resigned.

KEYWORTH, H., M.R.C.S.E., has been appointed Medical Visitor of Private Lunatic Asylums in the District of York, vice W. E. Swaine, M.D., deceased.

MARTINDALE, J. W., M.R.C.S.E., has been appointed Medical Officer for the Martindale and Patterdale District of the West Ward Union, Westmoreland.

NORTON, G. E., L.S.A.L., has been appointed Senior House-Surgeon at the Middlesex Hospital, vice H. Case, M.R.C.S.E.

RINGLAND, J., M.D., has been appointed President of the Obstetrical Society, Dublin, vice S. L. Hardy, M.D., deceased.

ROBERTSON, J. D., M.D., has been appointed Medical Officer for the Esmentbridge District and the Workhouse of the West Ward Union, Westmoreland, vice Irving, resigned.

ROBINSON, A., L.R.C.P.Ed., has been appointed Medical Officer for District No. 1 and the Workhouse of the Blything Union, Suffolk, vice J. S. Harris, L.K.Q.C.P.I., resigned.

SIMS, Mr. F. M., Surgeon to St. George, Hanover-square, Dispensary, has been appointed Assistant-Surgeon to the Hospital for Diseases of the Skin, Blackfriars.

SOPER, Mr. W., of Clapham-rise, has been appointed Medical Officer to the Stockwell Orphanage.

WEBBY, A., M.D., has been appointed Medical Officer to the Works of the Smyrna Quay Company.

WHITE, R. P., L.K.Q.C.P.I., has been appointed Surgeon to Meath Hospital, vice J. W. Stronge, M.B., deceased.

YEO, Dr. I. B., Resident Medical Tutor and Lecturer on Animal Physiology, King's College, London, has been appointed Physician to the Westminster General Dispensary, Gerrard-street, Soho, vice Kidd, resigned.

Births, Marriages, and Deaths.

BIRTHS.

DAVSON.—On the 21st ult., at Carlton-terrace, Kilburn-park, the wife of S. H. Davson, M.D., of a son.

DUKES.—On the 29th ult., at High House, Enfield Highway, the wife of M. C. Dukes, M.D., of a son.

FRAIN.—On the 25th ult., at Frederick-street, South Shields, the wife of J. Frain, M.D., of a daughter.

FRODSHAM.—On the 23rd ult., at Stretham, the wife of J. M. Frodsham, M.D., of a daughter.

GORNALL.—On the 22nd ult., at Jordan-street, Fishergate, Preston, the wife of John H. Gornall, M.R.C.S.E., of a son.

RHIND.—On the 29th ult., at Knowle, Mirfield, the wife of John Rhind, M.D., of a son.

SLYMAN.—On the 28th ult., at Caversham-road, Kentish-town, the wife of W. D. Slyman, M.R.C.S.E., of a son.

STEVEN.—On the 22nd ult., at Glasgow, the wife of James Steven, M.D., of a daughter.

MARRIAGES.

MACMUNN—MATHIAS.—On the 18th ult., at Chelsea, John Alex. MacMunn, M.B., Staff Surgeon Royal Hospital, Chelsea, to Charlotte Edith, daughter of the Rev. G. Mathias, Chaplain to the Hospital.

MOORE—STURGE.—On the 26th ult., at Wellington-square Chapel, Hastings, Daniel Moore, M.D., of Hastings, to Henrietta, younger daughter of the late Henry Sturge, Esq., of Bewdley, Worcestershire.

O'KELLY—JOYCE.—On the 19th ult., at Ahascragh, Joseph O'Kelly, M.D., of Kilconnell, to Ellen Mary, daughter of the late P. J. Joyce, Esq.

DEATHS.

BARRETT.—On the 28th ult., T. Barrett, M.D., of Bath, aged 53.

BAYLIFFE.—On the 19th ult., Chas. S. Bayliffe, M.R.C.S.E., of Chippenham, Wilts, aged 35.

COCKERILL.—On the 27th ult., at his Office in Piccadilly, W. J. Cockerill, Esq., Secretary to the Cancer Hospital, Brompton, aged 65.

CONYNGHAM.—On the 28th of Aug., at Buenos Ayres, South America, Constantine Conyngham, M.R.C.S.E. & I., formerly Surgeon in H.M.'s Royal Navy, aged 61, resident in South America for the last thirty years. Deeply regretted by all who knew him.

COWAN.—On the 29th ult., C. Cowan, M.D., of Reading, Berks.

FRASER.—On the 27th ult., at Inverleithen, James Fraser, M.D.

HERBERT.—On the 14th ult., J. L. Herbert, Surgeon, of James-street, Bangor, aged 89.

HOBSON.—On the 29th ult., R. Hobson, M.D., of Leeds, aged 73.

LEETE.—On the 2nd inst., after a short illness, John Griffith Leete, F.R.C.S., L.S.A., of Thrapstone, Northamptonshire, aged 62.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DIPLOMA OF FELLOW.

SECOND EXAMINATION.—PATHOLOGY, THERAPEUTICS, AND SURGERY.

November 28th, 1868.

From one o'clock to five o'clock P.M. Answers to *less* than four questions are not received.

1. Describe the different forms of mortification affecting an external part—the causes, the condition of the structures involved, and the treatment.

2. Wound of the Lung:—Mention the more and less frequent causes, the symptoms local and general, and the treatment. Refer, in illustration of your statement, to any case or cases which have been under your observation. If the treatment includes the use of drugs, let the prescriptions for their employment be written in full.

3. Name the diseases to which the antrum maxillare is liable; point out the characters by which they are severally distinguished, and the treatment. Indicate any disease which would render the removal of the upper maxillary bone advisable, and describe the operation for effecting the removal of that bone.

4. Glaucoma:—Describe the distinguishing characters of that disease, including those observed within the eye with the help of the ophthalmoscope; also the morbid changes in the structures of the eyeball, and the effects on vision. Give a description in detail of any operation undertaken with a view to arrest the progress of the disease, and state under what circumstances the most favourable result of the operation may be looked for.

5. Describe the early indications of the presence of an ovarian cyst. Give an account of the structure of the cyst, of the progress of its growth, and of the evil effects it produces. State the diagnostic signs of the disease at an advanced period of its development, and the circumstances which would render the operation of ovariotomy expedient.

6. Write a prescription containing strychnia for a case in which you might consider that drug advisable. State the precautions to be observed in its administration, and the symptoms indicative of its action on the system, as well as the symptoms presented in cases where an overdose has been taken.

Medical Diary of the Week.

Monday, Dec. 7.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 1½ P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—2 P.M. General Monthly Meeting.
MEDICAL SOCIETY OF LONDON.—8 P.M. Mr. Peter Marshall, Mr. Hainsworth, Dr. Hutchinson, Dr. Leared, and Dr. Thorowgood, "On Gall-stone."
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Report of the Committee appointed to examine into the value of the Nitrous Oxide as an Anæsthetic.

Tuesday, Dec. 8.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ETHNOLOGICAL SOCIETY OF LONDON.—8 P.M. Mr. Howorth: "The Westerly Drifting of the Nomades from the 5th to the 19th Century."—Col. Lane Fox, "On some Flint Implements found associated with Roman Remains in Oxfordshire and in the Isle of Thanet."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Ballot.—8½ P.M. Dr. Pellew Bain, "On a New and Simple Method of Inducing Artificial Respiration in Cases of Asphyxia, &c."

Wednesday, Dec. 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
OPHTHALMIC HOSPITAL, SOUTHWARK.—Operations, 2 P.M.
EPIDEMIOLOGICAL SOCIETY (32A, George-street, Hanover-square).—8 P.M. Address by the President.
HUNTERIAN SOCIETY.—Council Meeting.—8 P.M. Mr. Bryant, "On some Points in the Treatment of Ovarian Tumour and on Ovariotomy."—Dr. Sutton, "On the Difficulties of Diagnosis in some Cases between Pyæmia and Rheumatic Fever."

Thursday, Dec. 10.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, Dec. 11.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. Callender (for Dr. Crouch): "Primary Amputation for Gunshot Wound."—Dr. Beigel, "On Cases of Epilepsy."—Mr. Thos. Smith, "On a Case of Scleroderma."—Dr. Green, "On a Case of Irritative Hypertrophy of the Heart."

Saturday, Dec. 12.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

To Correspondents.

ROYAL ASYLUM, PERTH.

THE Report of the Physician (Dr. Lauder Lindsay) to Murray's Royal Asylum at Perth, relating to the triennial period 1865—8, has just come to hand, and from it we gather that the institution has passed safely through a financial crisis, arising out of the large reduction of its inmates by transfer to other asylums, while the working expenses could not be correspondingly diminished. The number of patients resident in June, 1865, was 81; the admissions in the following years, 60; the deaths in the same period, 11; the discharges, 63; and the patients remaining in June last, 67. Of the character of the institution, we get some idea from the statement that 90 per cent. of the patients are incurables, that 50 per cent. have been resident from five to thirty years, and that 50 per cent. of them are over fifty years of age; and judging further from the proportion whose condition either by reason of disease or vicious propensities requires special supervision and accommodation, there is not much difficulty in accepting the conclusion that the minimum *board-rate* of £30 per annum is unremunerative, especially as so many of the inmates pay only that minimum. In respect of "voluntary boarders," their unsatisfactory legal position militates against their admission, and as the majority of those who offer themselves are dipsomaniacs, the Directors regret that facilities in the reception of that class which they enjoyed for a short time were soon taken away, and that consequently they are obliged to exclude a remunerative group of patients from the benefits which the asylum is capable of bestowing in such cases. A form of restraint in use in the asylum is the "protection" or "locked bed" for preventing patients getting out of bed without the knowledge and sanction of the special attendant in charge; and Dr. Lindsay maintains that *in certain exceptional cases* this arrangement is by far the best that can be made.

Solicitous.—The practice of putting milk into zinc pans for the separation of the cream is decidedly objectionable, as lactate of zinc would almost inevitably be formed to some extent.

V. E.—At Hansard's, Great Queen-street, Lincoln's-inn-fields.

An Intending Candidate.—We are not aware of any intention having been expressed to reduce the number of staff medical officers.

X. Y. Z.—It is quite open to our correspondent to accept the appointment.

THE NEW VACCINATION ACT.

To the Editor of THE LANCET.

SIR,—Seeing your remarks on the new Vaccination Act, I feel it my duty to explain to you one of its errors.

Kidderminster, with a population of 18,000 to 20,000, is divided into two Poor-law districts: one is held by Dr. Roden; the other, together with the workhouse, I hold myself. Both of us have been for many years public vaccinators. The new Act compelled one of us to resign, on the ground that the population was not sufficiently large to enable two vaccinators to conduct the operations satisfactorily to the Vaccine Board. I therefore resigned my appointment, and now, with my lessened facilities, I am desired by the guardians to vaccinate the children in the workhouse gratis, having previously been paid for the same. To this I object, on the ground that being unable to give satisfaction with 8000 of a population, I cannot be considered eligible to operate for a smaller community. The answer I obtained from the Poor-law Board is short—namely, you can obtain lymph at any time from Government free of charge. This I was aware of in conducting my more convenient charge. I therefore explained my case to the Privy Council, from whence I received a reply, that I had better recommend the Board of Guardians to allow the public vaccinator to operate, in consequence of my facilities being lessened. I submitted the recommendation to the Board of Guardians, who asserted that this process would incur an unjustifiable increase of expenditure. My resignation as public vaccinator being required and accepted by the Board, I am certainly not the one now called upon to operate.

I cannot fathom the circumlocution office, so I shall be glad if you can aid me in the stand I ought to take in the matter. Am I or am I not bound to vaccinate the workhouse children?

Pending my inquiry, I have sent the inmates requiring vaccination to the station of the public vaccinator.

I am, Sir, yours obediently,

Kidderminster, Nov. 7th, 1868. SAMUEL STRETTON.

*** The medical officer is bound to vaccinate children in the workhouse, as one of his general duties.

To the Editor of THE LANCET.

SIR,—There always has been a great objection on the part of the medical profession to the vaccination certificates, and it has always appeared to me that the greatest simplicity should be aimed at by the framers of such. I consider the one now required to be a nuisance, because it takes time and gives trouble, both unnecessarily. For instance, my patient sends me the paper always unfilled up. I have to hunt up the details—child's name, parents' names, age, and all the rest; and so I believe a large number of children are really vaccinated, but no returns are made, and thus the inquiries are multiplied, and expense created.

Why should not an improvement be made in the first page which the registrar issues, by a short paragraph printed thus:—

I hereby certify that the above child has been successfully vaccinated by me.
Name and degree.
Address.
Date.

I believe if the doctor had to fill up only the last three items, without bothering concerning the former, hundreds of certificates would be returned which are now put aside for a more convenient season, which never comes.

Yours obediently,

Kennington-park-road, Nov. 25th, 1868. W. T. ILIFF.

HONORARY HEALTH OFFICERS.

THE Improvement Commissioners of the town of Newark (Notts), at their meeting a fortnight ago, elected Mr. E. Welby, M.R.C.S., to the office of "Honorary Officer of Health;" but Mr. Welby, it appears, has declined to accept the appointment, on the ground that the question whether any salary should or should not be attached to it had not been determined, as in the event of a salary being given he would not stand in the way of any medical man who might be willing to undertake the office. We beg leave to say that an "honorary" health officer is an anomaly which should not be countenanced by any member of the medical profession. The efficient discharge of the duties of a health officer implies the devotion of time thereto, which is, or ought to be, valuable to its owner, and should therefore be properly paid for; their inefficient performance, of course, nobody, least of all a medical man, should sanction.

Senex.—Our correspondent does not mention to which examining body he refers. Information of every kind relative to the different Arts examinations can be obtained on application to the several licensing bodies.

Dr. Wardell is thanked.

EAST LONDON UNION.

To the Editor of THE LANCET.

SIR,—As you have already referred to certain proposed action on the part of the East London Union guardians relative to the medical officer's dispensing at their workhouse, permit me to ask your insertion of the following report from last Saturday's *City Press*:—

"At the weekly meeting of the Board of Guardians of the East London Union, a long discussion ensued as to the duties of the nurse, who, it was alleged, in defiance of the order of the Board, continued to compound the medicines ordered by the medical officer.

"Mr. Brunton contended that the nurse was only carrying out the orders of the medical officer, who had a right to do as he pleased in that matter.

"Mr. Hudson thought otherwise, and said that should the nurse make any fatal error, as she might easily do, the fault would lie at the door of the guardians. He moved that the nurse be informed that unless she obeyed the instructions of the Board she will receive her discharge.

"Several members having spoken on the question, it was resolved that the nurse be requested to attend the next meeting of the Board."

I also give an extract from my medical report book. The interference deprecated was that of a guardian, who came down to the infirmary one evening, and peremptorily ordered the nurse to stop all medicine administration. This illegal act I counteracted the following morning, by giving the nurse an order in writing to act as heretofore till the guardians had, as promised by them, supplied the requisites necessary for the contemplated alteration.

Extract from Report Book.

"Permit me to deprecate all irregular interference with the superintendent nurse, and to request on behalf of my patients a reasonable time to procure the 'plant' required to carry out the important changes you have urged upon me."

Let me further explain, Mr. Editor, that all special medicines are dispensed by the medical officer himself, ready for administration; that the compounding by the nurse is the *dilution only* of certain stock medicines prepared at my private surgery in a concentrated form, and that this plan has been in operation for nearly fourteen years without error on the part of the nurse, or a complaint on the part of the patients; that the several medicines (supplied by me out of a salary of £135 per annum) are administered by the gallon to my many patients; hence if the dilution be performed by the medical officer, very much larger vessels than those my concentrated preparations require must be procured. The orders for these and certain other requisites were submitted by me to the guardians some weeks ago. When these essentials have been secured, no one will be more willing strictly and literally to carry out the orders of the Poor-law Board and the desire of the guardians than,

Yours obediently,

THE MEDICAL OFFICER OF THE EAST LONDON UNION INFIRMARY.

November 23rd, 1868.

*** Although the mode of dispensing adopted by the medical officer has been in successful working so many years, it appears to us quite indefensible. Both Parliament and the Poor-law Board have long ago determined that the guardians ought to find the drugs and a person to dispense them. It is really monstrous to suppose that the medical officer can afford to do it properly out of his salary.

J. M. D., a graduate of the University of Glasgow and M.R.C.S. England, supplies to his patients medicines which are dispensed by a druggist in the town, and charged for by the surgeon. He wishes to know if the Pharmacy Act will prohibit his continuing to practise in this way. To the extent to which he thus supplies the substances included in the schedule of poisons, and his doing so constitutes "selling," we believe it will. This is one of the points to which the attention of the profession is now being directed.

Mr. H. J. Bentley.—1. Yes, under the Medical Act.—2. The provisions of the new Pharmacy Act will not be enforced against medical practitioners.—3. Yes, by courtesy.

C.—The case shall appear in a week or two.

"THE SHIP CAPTAIN'S MEDICAL GUIDE."

To the Editor of THE LANCET.

SIR,—Your very complimentary notice of "The Ship Captain's Medical Guide" in THE LANCET of last week induces me to address you for the purpose of informing your readers that Dr. H. T. L. Rooke, Surgeon to the *Dreadnought* Hospital Ship, is the author of most of the chapters on Surgery; and that Dr. Dickson, R.N., Medical Inspector of Her Majesty's Customs, revised the work before its publication. My position as a compiler, and my sense of gratitude to those from whom I have received so much polite and valuable assistance, alike impel me to trouble you with this brief addition to your notice of the "Guide." Your obedient servant,

Hospital Ship, *Dreadnought*, Nov. 30th, 1868. HARRY LEACH.

THE ROYAL SANITARY COMMISSION.

A THOUGHTLESS blunder, perpetrated first by a metropolitan daily journal, has been copied far and wide, and in local newspapers from all parts of the country we read among the list of the Royal Sanitary Commissioners the name of "Mr. S. H. Clerk, M.D.," under which guise, we fear, the Rev. Professor Haughton, M.D., will hardly be recognised by many. The notion that divinity and medicine could be associated in the qualifications of one gentleman has apparently never struck the originator or the copiers of the mistaken appellative.

Dr. T. S. Bulmer.—Those who hold the qualification of the Apothecaries' Company are subject to the 17th clause of the Pharmacy Act, where poisons are sold over the counter. A M.R.C.S. can legally recover under the Medical Act.

Dr. A. Hewan writes in favour of good doses of nitrate of potash as a saline, especially in rheumatic fever. We prefer the bicarbonate.

PROFESSIONAL ETIQUETTE AND CONTRACTS UNDER THE VACCINATION ACT.

To the Editor of THE LANCET.

SIR,—In your number for the 31st ultimo you give as "a good example" the conduct of Mr. Brown. May we ask you to insert a sad contrast.

The guardians of the Aylsham Union wrote to each medical officer, asking if he were willing to accept the minimum fees of the new Vaccination Act. Two of us declined, as being, under the circumstances, insufficient, and suggesting some alteration. The offer was repeated the following week (in consequence of the others assenting). This we had not anticipated, but felt that in the interest of the profession we could not honourably give way. Subsequently the same offer was made to Mr. Little and Mr. James, two non-residents, who, from distance (five to seven miles) would be entitled to the highest fee in *all* cases. With both we were on friendly terms, and felt fully confident they would support our decision, as the former had previously urged on us the standing out for higher fees; and the latter, if ignorant of the prior facts, would surely feel that an invitation to invade the parishes in which we resided, and accept offices which we had for many years held, was, to say the least, a very unusual proceeding, and required some little inquiry. But, alas, our confidence was misplaced; the magnificent 3s. fees looming in the distance were all-powerful; and, without a word with us, both accepted the position.

In answer to our remonstrance, Mr. Little says "that if he didn't take it, he was told some one else would, and that he might as well have it as another person coming into the neighbourhood."

Mr. James says that "he accepted under a misconception;" but adds that to rectify his error would be "*a breach of faith and insult to the guardians.*"

This conduct is so subversive of the good feeling and confidence which should exist amongst us, that we consider it our duty to bring it before the profession for condemnation. Your obedient servants,

C. H. PERRY.
Reepham, Norfolk, Nov. 17th, 1868. THOS. ALDERTON.

A Subscriber of Ten Years' Standing.—There is nothing in the general orders which would compel a medical officer to make other than reasonable arrangements for the accommodation of sick paupers who may visit him or desire to be supplied with medicine. These conditions our correspondent appears fully to comply with. He may therefore rest content that no serious difficulty will arise from the opposition of the two or three cantankerous guardians.

THE EDINBURGH SCHOOL AND ITS DEGREES.

THE following questions have been put to us:—1. Is the Edinburgh medical school a good one?—2. What position do its degrees give the holder in the medical world?—3. Is the double qualification of Edinburgh accepted by the Poor-law Board. Our replies are: 1. There is no better school than the Edinburgh medical school.—2. The degree of the Edinburgh University gives the holder of it a very honourable position.—3. Yes.

LIST OF SUBSCRIPTIONS FOR MRS. JUMP.

THE following additional subscriptions have been received on behalf of Mrs. Jump and family:—

Received by Rev. G. W. WINTER.

	£	s.	d.
Medical Benevolent Fund	20	0	0
Miss Lucy Davy	2	0	0
A Stranger	0	10	0
T. K.	5	0	0
James Lester, Esq.	5	0	0
Mr. & Mrs. Tallent, Hingham	1	10	0
Mr. Marriott, Swaffham ...	1	0	0
Miss Rudge, Cromer	1	0	0
T. Godfrey, Esq.	0	10	0
Rev. T. C. Hulbert	1	1	0
Mr. J. Potter, N. Elmham .	1	1	0
R. A. Mason, Esq., Haslar .	5	0	0
Mrs. Trego, London	1	1	0
G. Thorne, Esq., Swanage .	1	0	0

Received by J. G. JOHNSON, Esq., Norwich.

	£	s.	d.
Dr. Copeman	1	1	0
Two Friends, by ditto ...	5	0	0
J. G. Johnson, Esq.	5	0	0
Per ditto	3	0	0
Alfred Marster, Esq.	1	1	0
G. W. Firth, Esq.	1	1	0
Dr. Gibson	1	1	0
T. Crosse, Esq.	1	1	0
C. E. Muriel, Esq.	1	1	0
S. Payne, Esq.	1	1	0
Mrs. H. J. Muskett	1	1	0
W. Cadge, Esq.	2	2	0

Mr. Johnson has kindly consented to receive subscriptions for Norwich and the district.

CARBOLIC ACID IN FURUNCULI.

DR. CLEBORNE, of Saratoga, states, in the *American Journal of Medical Sciences*, that during the past year he has treated an unusually large number of cases of boils, whitlows, and abscesses on board ship; and being dissatisfied with the usual mode of treatment, he determined to try the effect of carbolic acid. This he did by making a free opening so soon as fluctuation could be detected; and when all the pus had been discharged by gentle pressure, he either injected or swabbed out the cavity with the ordinary liquid carbolic acid, after which a cold-water dressing was applied. By this treatment further suppuration was prevented, and the wounds soon healed in a kindly manner.

THE CUSTOM HOUSE LONG ROOM.

THE clerks in the Long Room at the Custom House complain sadly of want of ventilation; and, as we gather from a letter in the *Daily News* of Tuesday last, they have petitioned the Commissioners for the provision of a purer atmosphere in which to carry on their daily duties, but in vain. We have done something to bring about a remedy for bad sanitary conditions in some of our public institutions. Must we take the Government Offices in hand also?

Cirencester.—The qualification mentioned is only good for surgical purposes. It would not, we believe, enable its possessor to enforce payment of a bill in a medical case. Strictly speaking, therefore, the diploma does not confer the right to practise medicine. Still there are numbers of men with only one qualification, and the fault is as much that of the examining boards as of the men in question.

B.Sc.—We are sorry that we are unable to give our correspondent the information he requires. He should apply to the Dean of some foreign University.

LEAD-POISONING: A WARNING TO POOR PEOPLE.

To the Editor of THE LANCET.

SIR,—I have had several cases of lead-poisoning this autumn, all arising from ginger-beer, containing tartaric acid, being fermented in the "bushel pans," so commonly used for kitchen purposes.

Two years ago I had very many similar cases from wine, made from several acid fruits, being fermented in these pans.

The glazing of the pans is produced by dusting them, whilst the clay is damp, with litharge and barley-meal previously to their being "fired" in the kiln. In all the cases I have met with, the glazing has been completely removed by the acid, and bichromate of potash added to the wine or ginger-beer has produced a copious precipitate of chromate of lead.

It would be a great kindness if medical men would warn poor people to use oaken tubs for all the purposes for which they now use these hurtful and by no means durable pans. Your obedient servant,

Romsey, Hampshire, Nov. 17th, 1868. FRANCIS TAYLOR.

Mr. F. J. Mason.—We are not aware that either the coagulation of the blood or the post-mortem rigidity of muscle has ever been attributed to the condensation of the natural gases of the body. We think our correspondent's notion is of too mechanical a nature. As far as we know at present, the gases entering the blood, and conveyed to the muscles during life, are as much in a state of chemical combination as they are after death, and hence there is no evidence that the particles of blood and muscle are floating in an atmosphere of their own during life, or that the particles lose their atmosphere after death. What facts has Mr. Mayor to offer in favour of his supposition of the presence of the atmosphere around each particle to which he alludes?

Mr. H. T. Woodd.—The subscription has been received, and will be forwarded to the proper quarter.

THE MEDICAL SOCIETY OF LONDON.

THE meetings of the various Societies have been so numerous that we find it impossible to publish a tithe of their proceedings. This is the case with the Medical Society of London, which is peculiarly prolific in its gatherings during the present session, and it is with regret that we can only chronicle the subject matter of the last three or four meetings.

A. A. G.—The communication on the "Action of Disinfectants" contains, we think, nothing new.

UNQUALIFIED ASSISTANTS.

J. H. J. (Durham) is an unqualified assistant. He thinks we are rather hard upon his class, because we have said that a great many such are employed in the colliery districts under the wing of legal practitioners, and that this is not a satisfactory state of things. We adhere to this opinion, though we quite believe that our correspondent is a very efficient assistant. He will see that we cannot advocate rules for exceptional cases.

Alpha.—Thorough fumigation with chlorine, and cleansing with a solution of carbolic acid.

LIQUOR STRYCHNIÆ.

To the Editor of THE LANCET.

SIR,—I wish to call attention to what I consider a grave defect in the liquor strychniæ of the British Pharmacopœia. I find that in cold weather, when the thermometer is below 45° or 40°, the strychnia is deposited in crystals at the bottom of the bottle, which crystals are again dissolved at a higher temperature. I think this is due to the small proportion of acid, or to the acid being hydrochloric, as when the solution is effected by means of sulphuric acid I have not noticed that any deposition takes place.

What is the reason, too, of the red discoloration and muddy deposit which occur in the syrupus ferri phosphatis when it has been made for any length of time? Does it in any way interfere with its therapeutic action?

Yours obediently,

Cranbrook, Kent, Nov. 25th, 1868. JOHN DEANE.

Mr. Matthews, (Yealand Conyers.)—We see nothing to complain of in Mr. Matthews's conduct. If the gentleman who superseded Mr. Matthews in the case said what Mr. Matthews has been told that he did say, he exceeded the bounds of both etiquette and reason. But one medical man should be very slow to believe loose statements of what other medical men said, or were supposed to say.

A Sufferer.—We can only advise our correspondent to consult any registered medical practitioner.

W. E. B.—It is contrary to our custom to give the recommendation our correspondent seeks.

A Militia Surgeon.—It has no merit whatever.

EVERY communication, whether intended for publication or otherwise, must be authenticated by the name and address of the writer. Papers not accepted cannot be returned. Articles in newspapers, to which attention is sought to be directed, should be marked. Communications not noticed in the current number of THE LANCET will receive attention the following week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Marcet; Mr. Harry Leach; Dr. Lowe, Lynn; Dr. Thomson, South Yarra; Dr. Corfe, Brighton; Dr. Murphy; Dr. Davies, Edinburgh; Dr. Williams, Denbigh; Dr. Hewan; Dr. Philipson; Messrs. Salt and Son, Birmingham; Dr. Wade, Hanley; Mr. Solomon, Birmingham; Dr. Henry; Mr. Andrews, Kurnool; Mr. Marshall; Mr. M'Arthur; Dr. Peters, New York; Mr. Johnson, Lancaster; Mr. Davies, Loughborough; Mr. Taylor; Mr. Pratt; Mr. Matthews, Yealand Conyers; Mr. Barton; Dr. Daly, Dalston; Mr. Allen; Dr. Bulmer; Messrs. Lolwenthal and Co.; Dr. Griffin, Bristol; Dr. Fowler, Hereford; Dr. Latham, Cambridge; Mr. J. Johnson; Mr. Sharples; Mr. Chesshire, Birmingham; Dr. Norton, Tamworth; Mr. Davys; Dr. Rhind, Mirfield; Mr. Clarke, Huddersfield; Dr. Wadd, Beaconsfield; Dr. Day, Stafford; Dr. Sainsbury, Oldbury; Mr. Stephens, Weyhill; Mr. Ikin, Leeds; Dr. Gore, Pallas Green; Dr. Frain, South Shields; Mr. Duclos; Mr. Goldsworthy; Mr. Buckle; Dr. Jones; Mr. Simpson; Mr. Gillingham; Mr. J. Branson; Dr. Lory Marsh, Nottingham; Mr. MacDonnell; Dr. T. Brown, Oldbury; Mr. Shorto, Southampton; Dr. Pike, Weyhill; Dr. Elliott; Mr. Whalley, Bradford; Dr. West; Dr. Wardell, Tunbridge; Mr. Manley; Mr. Hewett; Mr. Cookson; Mr. Harnett; Mr. Hughes; Mr. Littler, Swansea; Mr. Daly, Dublin; Mr. Palmer, Wallingford; Dr. Carson, Colemine; Mr. Cutcliffe; Mr. Crane, Dundalk; Mr. Alvanley; Mr. Evans, Leamington; Mr. Rogers, Bury St. Edmunds; Mr. Morgan, Usk; Mr. Grave; Mr. Gornall, Preston; Dr. Medd; Mr. Soper, Clapham; Mr. Thomas; Mr. Lane, Hawkshead; Mr. Bentley; Mr. Little; Mr. C. J. Fox; Mr. Dower; Mr. Geare, Sunderland; Mr. Milner; Dr. Short, Waltham-le-Willows; Mr. Cooper, Derby; Dr. Sturges; Dr. Denton; Messrs. Calvert and Co., Manchester; Dr. Saul, Lyndhurst; Dr. Downe; Mr. Poole; Mr. Skey, Reading; Mr. Bargett; Dr. Glover, Risby Gate; Dr. Hardwicke; Mr. Ingram; Mr. Dewton, Scarborough; The Secretary of the Victoria Hospital for Sick Children; M.D.; Solicitous; A Student of B.G.H.; A Mother, Brighton; E. G.; Spectator; The Punjab Government Secretariat; Vox Prætera Nihil; Senex; R. E. A.; A Militia Surgeon, Jersey; Anti-Cant; S. N., M.R.C.S., W. E. B.; Algha; North Staffordshire Medical Society; Æsculapius; Salus Populi; J. M. D.; Ethnological Society of London; ——, Antananarivo; Lex; Cirencester; J. H. Y.; An Intending Candidate; X. Y.; A Sufferer; G. B.; W. H.; &c.

Brighton Gazette, Borough of Hackney Express, New York Medical Record, Scientific Opinion, Surrey Advertiser, Gateshead Observer, Liverpool Albion, Bradford Daily Telegraph, Times (Nov. 28th), *Glasgow Evening Citizen, Bucks Herald, Lincolnshire Chronicle, Brighton Daily News, Japan Times, Worcestershire Advertiser, Merthyr Telegraph, Eastern Post, Scotsman, Liverpool Daily Post, Tooting and Balham Times, Spectator, Cosmopolitan, Court Circular, Brighton Observer, Dumbarton Herald, Parochial Critic, Public Health,* and *Hydropathic Record* have been received.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0	4	6	For half a page	£2	12	0
For every additional line.....	0	0	6	For a page	5	0	0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

TERMS OF SUBSCRIPTION TO THE LANCET.

	Unstamped.				Stamped. (*Free by post.*)			
One Year	£1	10	4		£1	14	8
Six Months	0	15	2		0	17	4
Three Months	0	7	7		0	8	8

Post-office Orders in payment should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable to him at the Post-office, Charing-cross.

*** An Edition of "THE LANCET," printed on thin paper for Foreign and Colonial circulation, is now published weekly.

THE LANCET can be obtained from all the principal Booksellers and Newsmen throughout the world, or from the following special agents:—

EDINBURGH: MACLACHLAN & CO.

DUBLIN: FANNIN & CO.

PARIS: G. GERMER BAILLIERE, Rue de l'Ecole de Médecine, 17.

UNITED STATES OF AMERICA: KELLY, PIET, & CO., Baltimore. Terms of Subscription by mail to any part of the United States (Territories excepted), 12 dollars currency per annum, per Messrs. KELLY, PIET, and CO., Baltimore.

CANADA: DAWSON BROTHERS, Montreal.

AUSTRALIA: { GEORGE ROBERTSON, Melbourne. WILLIAM MADDOCK, Sydney. W. C. RIGBY, Adelaide.